

In: more short courses; Out: general degrees

Economic pressures would force universities into running more short courses of one and two years' length, Mr Charles Carter, vice-chancellor of Lancaster University, said in introduction to the conference discussion on the aims and purposes of higher education.

Because the money available for higher education was no longer increasing, pressure would be put on the universities to concentrate on the vocational needs of society. This involved both training for specific jobs and general preparation on which professional training was built.

Mr Carter had doubts about the future of the general degree. Originally the professions made a distinction between the education of skilled men through subjects like classics and history and later professional training, but a society which believed in early maturity and

The third international conference on higher education, entitled 'Excellence or Equality: a Dilemma for Higher Education,' took place at Lancaster University this week. Brian MacArthur and David Walker report

early marriage could not tolerate lengthy two-part education. Nevertheless this attitude persisted, he said. In accountancy, for example, many firms preferred to recruit as articled clerks graduates in general subjects from Oxford and Cambridge rather than graduates in accountancy from other universities. Mr Carter went on to discuss the concepts of equality within differing interpretations of the universities' role. The British system was

not one of real equality of opportunity, for the equality it offered was between those qualified to take degrees and not between those capable of some period of higher education. Measures which purported to increase equality could have an adverse effect on the research done in universities. If teaching was related to research in inflexible proportions, the universities could suffer a real loss of excellence although some

university claims were exaggerated. "The truth is that research is necessary to universities as a means of enlightening their teaching or, more cynically, of attracting teachers, but it cannot be shown either that universities are necessary to research or that a particular amount of research is necessary to the nation. "Worsening of the student-staff ratio or expanding those institutions which teach but do little re-

search will be seen in the universities as a loss of opportunity for excellence either by the diversion of funds to other institutions or the spreading of available research money more thinly. However, there may be as much research in the universities as before; what is seen as a loss is really the disappearance of a professional expectation that every university teacher will have research opportunities, however many teachers there may be. Mr Carter concluded with a plea for more information. It was not known just what conditions were necessary to produce good academic teachers, but it was not known what was professionally convincing and what was the truth in estimating how much "lavish attention to the intellectual life there needed to be. Countries with widely different policies on spending seemed to be able to hold their own in scholarship, he said.

When selection equals loss of opportunity

"Abundant" evidence demonstrating that the assumption that "more merit" was false was cited by Professor Torsten Husen, of Stockholm University, in a speech on securing equal access to higher education. Empirical studies showed that a sizable loss of talent occurred in countries with highly selective university systems, he said.

Scholastic aptitude was in a large extent constituted of non-cognitive attributes. A massive empirical research showed that at most half the individual differences in educational attainment could be attributed to purely intellectual factors. The rest was motivation, interest, perseverance, health, and home background.

When an-called intelligence tests were administered to unschooled populations, the bell-shaped distribution of IQ, with the majority around the mean and increasingly fewer closer to the extremes of the curve, was simply an artefact of the norm-referenced procedure by which the tests were constructed.

Three further points were made by Professor Husen to show that an expansion of opportunity did not lower standards: —

- There were sources of evidence in social science research that the role of talent was to some extent expendable. IQ could be considerably improved by additional formal education.
- There was on average a slight improvement in the mental ability of students between 1918 and 1943 when enrolments in United States high schools more than doubled. Another investigation has shown that the average level of ability among college entrants had risen from the 53rd to the 65th percentile between 1920 and 1965.
- An international study had shown that the top 5 per cent of 18 year olds in the United States, where

there was a long-established system of secondary education, scored at the same level as their French, German, and British contemporaries in selective schools.

Professor Husen went on: "Thus we can to a considerable extent stretch the cognitive capital. But evidently a certain limit of enrolment constitutes a point of diminishing returns in terms of pure intellectual assets, be they promoted by the most progressive social and economic policy. We should not forget that academic pursuits to a large extent also depend upon motivation, interest and perseverance.

"This applies not least to the high level academic pursuits that we call research. The potential research interests. These plus the motivation sometimes are at least as important when it comes to a decision about embarking on the lottery of a research career as are the purely cognitive assets."

Whatever occurred, the present situation called for different models of admission to higher education. Two types of students could be distinguished who enrolled at research-oriented institutions: those oriented vocationally or towards a specific occupation who wanted competence, and a second minority category who were primarily intellectually oriented. Their major concern was not to prepare for a particular occupation but to broaden their perspective. They wanted the university to help them open up new vistas.

Although the modern university fulfilled complex functions including equality of access and opening universities to adults, what the universities were doing, what the professors like himself were at least as interested in were those students whose interests were primarily academic and who were willing to devote their lives to scholarly pursuits.

'Boundaries are slowly breaking down'

The boundaries between universities and colleges and between degrees and diplomas are gradually dissolving, producing a new "diffused system" of higher education, Dr Cerych, Cerych, director of the European Commission in the Brussels Institute of Education, said during a discussion on access to higher education.

Dr Cerych said that new forms of study like the Diploma of Higher Education were abolishing the distinction between the universities and other sectors. A new system was emerging in Europe that was not only one of universal access, but in which it was more and more difficult to define what was and what was not higher education.

He suggested that instead of thinking of higher education evolving from an elite stage through a mass phase to one of universal access, Europeans should face the transition from elite to universal without the intervening stage.

He put much weight on developments like the Open University as a new route subverting the old system. To the extent that principles of recurrent education will generalize, this individualism in terms of levels of the student population will become stronger still. The calculation of total figures for post-secondary enrolment by students will have to be revised. Thus if students would have been included in United Kingdom figures after 1970, almost no slowing down in the growth rate of British higher education would have appeared.

Dr Cerych put emphasis on the alignment of various trends in Europe and the point was taken up by Professor Marcel Goldschmidt of the Swiss Federal Institute of Technology, who addressed the group looking at teaching and learning. Professor Goldschmidt isolated several recent tendencies, including more personal teaching, greater use of computers and various machines, the creation of "resource centres" and teaching by students themselves.

Likewise, assessment of teaching by the students was increasing throughout Europe, while at the same time more attention was being paid to better training of university teachers. Courses had been set up together with curriculum development schemes involving close co-operation among various specialists. Professor Goldschmidt discussed what he called collaborative curriculum, where teachers were staff got together to make important decisions in the material they were teaching.

"Groups of subject matter specialists, to instructional media have begun on a few campuses to create materials of high quality. At the Open University this approach has been particularly successful and has become the rule for all new courses."

Professor Goldschmidt then touched on radical alternatives in this area, listing the OU and the French University Without Walls among them. In another sector of the conference, Professor Ian Later of the University of York, took this title to include much more fundamental changes in the organization of education.

Research 'needs environment of elite institutions'

Research and scholarship of the highest quality needed a stable environment insulated from the noise and turmoil of university politics and academic reform, Professor Martin Trow, of the University of California, Berkeley, told the first session of the conference.

Such an environment was most likely to be found within what progressives scathingly called "elite institutions". Within this category Professor Trow classified most British universities, many American graduate schools, and the French grandes écoles.

He said that despite attacks from politicians outside and academics within—many vice chancellors were hostile to the essential purposes of their institutions—he was optimistic about the survival of elite higher education. This was not incompatible with higher education for 20 per cent or 30 per cent of the 18-year old age group.

"While elite higher education has its enemies, some of whom cannot be placated, it need not owe to them out of its own hubris. I do not, for instance, believe that mass higher education or institutions with universal access for continuing education are the enemies of elite forms. "The bulk of the provision for higher education cannot be in elite forms; for one reason it is too costly, for another only a fraction of students and teachers have the interest, motivation and abilities to take part in the broader personal and intellectual relationships that make up elite education."

Professor Trow said elite education was partly defined by the quality of the personal relations within it—teachers and students met within a community of scholars and in the case of Oxford and Cambridge, in a certain way of life. But it did not include training young men and women for specific occupations.

"The traditional English idea of

the university is that education does, in fact, have this vocational character: it must necessarily be bureaucratic, marked by relations between students and teachers which are defined rather narrowly by technical syllabus, segmental rather than comprehensive, with obligations that are specific rather than diffuse."

However, elite education flourished elsewhere. Professor Trow cited the Massachusetts Institute of Technology and the under graduate courses at Harvard and Swarthmore, or the tightly-knit graduate schools such as those at Berkeley.

All these colleges and schools came together in conveying to their students that they could accomplish big things in the outside world, make discoveries, influence the law and government, and add to knowledge.

"Institutions of elite higher education are machines for raising students' ambitions, and for providing social support and intellectual resources for the achievement of those ends. Mass higher education, by contrast, centres on the transmission of skills and knowledge through relations between teachers and students that are more flexible and impersonal."

These institutions would survive, Professor Trow concluded, if only because of the importance of the contribution they made to economy and society. Despite their expense and ineffectual nature, these universities and colleges had powerful roots. They were often backed by their former students who had gone on to become civil servants and politicians.

However, he emphasized that they were not the enemies of the mass institutions. They could co-exist, sometimes with patterns of elite education—like a teacher with a small class giving them personal attention—right in the middle of large, impersonal institutions like the American state universities.

Lord Ashby hits out at student unemployment pay 'racket'

by Sue Reid

The growing practice of students registering as unemployed during their vacations has been condemned as a racket by Lord Ashby, past master of Clare College, Cambridge. He has called for Government intervention to halt the trend and a formalized academic work programme in higher education to ensure vacation study among students.

Lord Ashby outlined his strong feelings on the subject of students drawing unemployment benefit during a BBC radio interview. While attacking his own over the rising unemployment figures he said his concern did not cover the thousands of students who claimed unemployment benefits.

He added: "To regard students, most of them already getting local authority grants to support their studies, as eligible for unemployment benefits is in my view a dangerous misuse of public funds; dangerous for the universities and for the students themselves. The sooner the Government puts a stop to it the better."

Lord Ashby said that Government action to match grants with living costs had been disgracefully late but he believed that being a student was a full-time occupation and to be an effective student demanded at least 46 weeks of the year devoted to close application of academic work.

If it was Government policy to remove the financial barrier to higher education then the grant level should be based on the assumption that full-time meant full-time.

In three years a student had to acquire certain knowledge and the techniques for keeping this knowledge up to date and extended. This could not be done by attending lectures and classes for 30 weeks a year. The 10-week term was packed with information which could not be fully digested, with stimuli which could not be fully responded to, ideas which remained half-formed, and advice which could not be followed.

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of removing financial barriers to higher education, should either stand by that commitment or, if the economy demanded it, publicly renounce the policy.

He went on: "If they stand by it means that full-time students must be financed on the assumption that they have to survive for 12 months a year, not seven and a half months without being obliged to take paid employment."

The universities should "underwrite" the description full-time student. This could be done by formally planning the work of the academic year as a 44-week operation, 30 weeks on campus under supervision and 14 weeks elsewhere, uninterrupted.

There was nothing new about this and it already happened in some extent. Professors did assign formidable reading lists for vacations, and there were field trips for biologists and workshop practice for technologists.

But Lord Ashby added the present system was too piecemeal. It did not happen widely enough and could be dodged. An end of term check up on progress was not uncommon, but an end of vacation check up on progress was rare.

The simplest tactical measure to ensure vacation study would be to make all official university examinations at the end of vacation, not at the end of term.

He suggested that a "topping up" loan system on top of basic grants could solve the problem of students needing to find holiday employment to pay the costs of their university education. This could be subject to a means test and would allow the student who wanted to be independent of his parents, or the student whose parents were unwilling to contribute their share, to have a loan and free himself from financial anxiety during his undergraduate course.

It was essential, Lord Ashby added, that the Government, having committed itself to the policy

of removing financial barriers to higher education, should either stand by that commitment or, if the economy demanded it, publicly renounce the policy.

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Expansion means less able students, Annan warns

by David Hencke

Academics are warned this week by Lord Annan, provost of University College, London, to expect less able students to gain places in universities because of the expansion of higher education.

"Unlike the 1960s when numbers of highly able school-leavers were finding a place, the expansion of the 1970s is going to mean admitting for the most part increased numbers of less able students, some of them sucked into the system by convention, unmotivated, bewildered as to why they are there," he says.

Writing in a new book, *Universities for a Changing World: The role of the University in the late Twentieth Century*, he says that university entry, once a privilege, will soon be regarded as a right.

"Soon the state, which has previously been a benevolent and distant provider of funds, becomes intimately implicated in planning the growth of universities."

He adds: "The erosion of the student grants—the inability of the Government to finance the expansion of higher education at a level to which a generation of dons and students have become accustomed—raises a multitude of questions about the role of the university in the future."

"Late as the British were to recognize the need to expand higher education, their tardiness has enabled them to avoid some follies

and to permit the system to evolve at a pace which, if it has led to some dilution of the standards of being in it, has not swamped the profession with new recruits who neither understand nor accept the conventions of their calling."

He also expects more competition from the polytechnics because of their more vocational oriented courses and lower entry standards.

He concludes by asking whether the need for managerial talent and techniques will transform the universities into vocational factories or whether the egalitarian movement "in its fear of meritocracy will lower their status, abolish their intellectual standards and relieve them of their role of certifying the young?"

"The real test for some universities will come when they are no longer capable of further expansion either because their sites are fully exploited or because further increases in student numbers or research facilities for whatever reason are not feasible. At this point they will become institutions of zero growth. That will be their hour of trial."

Lord Annan's contribution is one of 11 on universities in different countries. Others cover China, Russia, Australia, India and the West Indies.

Universities for a Changing World, edited by Michael Stephens and Gordon W. Roderick, is published by David and Charles, South Devon House, Newton Abbot, Devon. Price £5.50.

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The Architectural Press/UNESCO Press, 9 Queen Anne's Gate, London SW1H 9BY.

£250m support plan for arts

A Labour Party Green Paper on the arts published this week has called for a separate Ministry for Arts, Communication and Entertainment. It also recommends an increased annual Government budget for the arts of £125m.

The paper, an interim report from the National Executive Committee's Arts Study Group, set up in 1973 and headed by Mrs Rosale Short, claims the state of the arts in Britain is critical and puts forward an urgent programme of action.

The basic policy proposals included in the paper are aimed at creating a more decentralised and democratic system of finance and administration of the arts, with not only an increased Government subsidy but higher grants from local authorities and sponsorship by industry and the trade unions.

In 1972-73, should rise a compulsory minimum rate of 0.50p on spending on the arts, the paper says, and funds collected by a levy on commercial television advertising should be channelled directly to the creative arts.

The decline of the film industry in Britain given special consideration in the Green Paper, and the NEC study group strongly recommends that an immediate grant of £10m be allocated to save film production from collapse. It also proposes the establishment of a public corporation to take over the marketing sector of the industry.

The paper estimates that an annual total of £250m is needed to fully support the arts, with £125m coming directly from the Government and a further £125m from other sources. It points out that this is only 5 per cent of the total

education sub-committee, and the education committee that the college should stay open.

The campaign group is to ask Mr Derek Senior, a leading planner, to investigate all aspects of Herefordshire's local government situation and recommend various alternatives to the merger of Hereford and Worcester which was introduced with local government reorganisation.

Mr Senior's recommendations will then be put to the people of Herefordshire through the referendum and the Herefordshire Survival Campaign says Parliament will be informed of the decision.

A campaign to save Coloma College of Education in Kent, another of the 13 colleges which the DES has decided must close to reduce the output of teachers, is now underway.

The college staff and student action committee is to stage a special production of *son et humeur* as part of its protest. The production was originally planned as the highlight of a recruiting campaign, now cancelled as a result of the closure decision.

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David Dickson and David Walker report from Guildford

Change of direction for scientific research 'bound to be painful'

Any period of rapid growth in public expenditure will inevitably be followed by a painful period of deceleration, Sir Kenneth Berrill, head of the Cabinet Office's Central Policy Review Staff and a former chairman of the University Grants Committee, told a meeting of the general section of the British Association.

When such a deceleration occurred, for example, in the demands for professionally-qualified manpower—such as for teachers, lawyers, or architects—the number of training places was bound to appear too high, and promotion prospects were bound to be greatly reduced.

"A slow-down has to occur sometimes, and is a social cost that has to be borne at the beginning of any period of expansion as part of the price to be paid", Sir Kenneth said.

"In the 1960s, the growth rates of the new universities, for example, were very high, and at the time it seemed to be very hard work growing at that speed. When people today look back, however, these seem to have been the golden years."

People would inevitably argue that closures of training programmes and cutbacks in other areas were a mistake, but much of the present unhappiness was caused by the general slowdown shared by many areas of public expenditure.

Sir Kenneth said that as well as the effects of deceleration on scientific research, there had been strong pressure for changes in the direction of science resulting both from the changing interests of students, and from the kind of science which governments and the public were asking from the scientific community.

"In most western countries, Ministers are asking for science to be increasingly directed towards social problems, but it is very dangerous to underestimate the difficulties of making such a shift in practice," he said.

Any shift, for example from "high" to "medium" technology,

as had been suggested by the Organization for Economic Cooperation and Development, was bound to be painful, and so too were attempts to relate science more directly to social decision-making.

"The real world of our present society is so complex and varied that it is very difficult to apply even one of the science or social science disciplines, for example, economics. Interdisciplinary approaches are incomparably more difficult," Sir Kenneth said.

"It will probably be some time before the degree of uncertainty is reduced. It will be a long hard slog, and we must be suspicious of quick results."

A shift in resources was the first important step, but there was also the problem of the social prestige attached to different types of activity, which was much more difficult to tackle.

"Perhaps the slowest process is getting technology on the same par as science in British society. It is one thing to come to a decision about the need for more professionally-trained engineers, but quite another to direct school-children into engineering," he said.

Sir Kenneth said that at a time when resources were growing slowly, it was even more important to look at the present orientation of science, particularly on account of the length of time that elapsed between any decided change in scientific priorities and a change in scientific output.

Referring to the reorganization of the research councils that had taken place in 1973 after proposals put forward by Lord Rothschild, he pointed out that Lord Rothschild had been concerned primarily with the natural science and with technology.

"Papers published recently by OECD, however, show an increasing concern with social problems, relating directly to the work of the Social Science Research Council. The shift in priorities suggested by OECD should perhaps lead us to look more in these directions in any future review of research organization."

Sir Kenneth said that as soon as scientific work approached decision-making, it had to become interdisciplinary, and that policy-making

was essentially an interdisciplinary activity.

"I would hope that scientists would want to get very much more involved in this type of decision-making than they have done in the past," he said.

They could participate in decision-making either as intelligent generalists, or by applying their scientific skills and techniques in conjunction with others in an interdisciplinary manner.

"This is quite a major challenge to today's scientists. It is posed by a sharp deceleration of funds on one hand, and the redirection of scientific efforts asked by governments and the public on the other," Sir Kenneth said.

The pragmatic question that faced young scientists was whether the system would continue as it had done in the past, or whether the future for them lay in much closer involvement with what some called "administration", and others "bureaucracy".

"Whatever happens, scientists will no longer be allowed to stand on the sidelines and to criticize the people that they have left to take the decisions," he said.

"The required changes may not need a very large shift in resources or people, but they need both attitudinal and institutional changes that promise to make it a long haul with an uncertain pay-off."

Earlier in the meeting Sir Alan Cottrell, master of Jesus College, Cambridge, and until recently chief scientific adviser to the Government, claimed that although science provided the substance of economic prosperity, it could do so only if industry received the required financial support from elsewhere.

The contribution of science to the national economy was therefore highly vulnerable to factors lying outside science, and the outstanding factor was the general attitude of Government to industry.

"There are some useful things science can do in making existing things work better and last longer. The practical applications of scientific knowledge about corrosion, lubrication and plant reliability, for example," Sir Alan said.

"But, so far as the whole national economy is concerned, science can only be an assistant, not a principal."

Sir Alan Cottrell's speech, page 18.



Research chiefs Sir Sam Edwards and Sir John Gray at Guildford

Trade unions seek a voice in decision-making

Strong criticism of the lack of trade union representation in the decision-making machinery of the research councils was made during a public discussion of the work of the five research councils.

Dr Michael Robinson, chairman of the National Staff Association of the Medical Research Council, asked why the Government had not taken up a suggestion made by the House of Commons Select Committee on Science and Technology that research council should include members of appropriate staff associations or trade unions.

The same point was raised by Mr Tony Hall, a member of the national executive committee of the Institution of Professional Civil Servants, who said that the institution represented a large number of scientists employed by the Government. In, for example, the research councils.

"Trade unions have a right to be considered for representation on the decision-making committees of the research councils. In a wider sense, they have an important contribution to make to discussions on dividing up the national cake, he said.

In reply, Mr Airey Neave, Conservative Member of Parliament for Abingdon, and a past chairman of the Select Committee, said that the committee had been angry that the Government had not taken up its suggestion that trade unions and staff associations should be represented on the research councils.

The suggestion had been made in the Select Committee report on the proposals put forward by Lord Rothschild on the organization of Government research and development, and the committee was still keen for it to be adopted.

A speaker from the Institute of Geological Sciences said he did not believe that in the current circumstances, scientists were the people to decide what research they should do.

Contrary to the view that the scientists who sat on research council subcommittees took a balanced

view of the requests for grant funds that came before them, he said that there seemed to be many more demands who took a very biased view of the world.

Sir Sam Edwards, chairman of the Science Research Council, said he objected strongly to the suggestion that members of a research council were dividing up any cake between themselves. "There is no great advantage in putting the man in the street on to a research council, as he will not understand what is taking place," he said.

"Nor is it reasonable to expect people who are not skilled in particular areas to take on the work of specialist committees. I feel that the present system, with representatives of industry and Government departments on many committees, is indeed in balance."

Earlier Sir Sam had drawn attention to the difficulties being faced by the scientific community as a result of cutbacks in public expenditure.

"Science is a continually developing activity, and just does not fit in a no-growth situation. When money is short, exciting developments in one field can only be accommodated by cutting out activities somewhere else," he said.

In particular, the falling value of the pound had caused considerable problems for the Science Research Council because of the resultant increase in its subscription to the European Centre for Nuclear Research (CERN) in Geneva.

"We are in a Catch-22 situation, since however much we reduce expenditure on our own high energy physics laboratories we cannot keep up with the extra costs caused by the falling value of the pound, and are therefore virtually unable to cut our nuclear physics budget," Sir Sam said.

"We can foresee a time when unless things look up, there will be no high energy physics in Britain at all; the high energy physics community feel that this would make things very difficult for scientists in this field."

SSRC's work on Scottish oil attacked as 'paltry'

The efforts of the Social Science Research Council to investigate North Sea oil's impact on the Scottish economy were paltry, a socialist told the symposium on the working of the research councils.

Dr Robert Moore, of Aberdeen University, criticized a new SSRC committee to coordinate research in the social effects of North Sea oil as "irrelevant and administratively confusing." He said that years of work at Aberdeen had gone un-
"No credit whatsoever attaches to the SSRC for most of the work now being done at Aberdeen and other Scottish universities. Much effort which should have been put into research has been extended trying to persuade the SSRC and other agencies of the need for broad-based coordinated and systematic research to be undertaken as a matter of urgency."

Dr Moore's criticism came only hours after the symposium under the chairmanship of Sir Bernard Lovell, president of the British Association, listened to claims of

SSRC officials over a research contract. Dr Moore was replying to a paper by Professor Fred Martin of Glasgow University, describing the SSRC's work.

Professor Martin was a member of a small advisory panel set up by the SSRC at the end of last year to examine the need for research in the social impact of oil. He had criticized Scotland as a "laboratory of social change" with new patterns of employment and settlement following the oil boom.

The SSRC recently decided to set up a committee with funds of £150,000 to provide for research on communities or the re-orientation of local industries of new oil installations and exploration.

It is understood the SSRC will publish the report of its advisory committee within a few weeks. Dr Moore described the research in progress being conducted in Scotland as "paltry."

Dr Moore argued that the funds for research into a rapidly changing area should have been

Don's diary

Writing disease

Glancing back through the university's annual reports, I am again struck that some of my colleagues publish regularly and frequently while others are silent as the tomb. Is there a disease which strikes selectively—and who has it, those who write or those who don't?

So far as I can ascertain, the non-writers are neither better nor worse teachers, administrators and seminar performers than the others. Nor are they notably less confident in public academic debate—they simply don't publish. Could it have anything to do with research supervisors failing to encourage the fledgling academic? Or is there a psychological blockage brought on by the sight of a pile of untarnished white paper?

A simple solution to the latter difficulty is to cut A4 in half, write the stuff in bold, large script, leave wide margins and use a variety of coloured inks and paper. In this manner one rapidly works through piles of paper, a comforting heap of manuscript is accumulated and the occasional frisson of aesthetic pleasure will be experienced when the colour combination works.

Even more important, though, is to write: get something on paper. If necessary without much preliminary agonizing about what it is going to be. Amazing how ideas come when writing and do not when thinking about what to write.

It all sounds banal, but it works with me and has done so since some 10 years of graduate students and collaborating colleagues. Before I forget: buy a new pen for each new book—with luck the royalties will cover the cost of that.

Thesis art

A curious art that of supervising graduate theses. Usually I find myself in the role of cautious academic insisting that a dissertation is limited, that time does fly and that one expects too much originality to submit through. The result is usually a competent piece of work, few signs of great genius, a couple of articles and a fairly satisfied external examiner.

I was luckier since I commenced research with two really fine supervisors and a fortunate topic which turned out to be suitable for a monograph. That was back in the stone age of British academic politics, when all the research topics had not been grabbed. Much more difficult now!

Today I am not even sure that one should encourage the would-be student to become a research academic at all since the prospects of obtaining a job are slight. But

still the applications continue to roll in, especially from the Middle East, India and Pakistan. A real problem here since none of us in Exeter has much information concerning relative standards of the universities from which the applicants graduated and one cannot exploit the expertise of Anne Rohini at the LSE too shamelessly.

Birth control

Back in 1962 doing research for a piece on the politics of birth control in England I visited the original Marie Stopes Memorial Clinic. After a few minutes of inconclusive chat a couple of girls in need of advice turned up and I was shooshed into the back room. Glancing around the bookshelves I found a couple of unpublished letters of John Stuart Mill. Great excitement, name will live far over more, serenity etc.

The ladies did eventually find their way into the Toronto edition of Mill's collected works. July 1977—had lunch with Mr Rupert Croft-Cooke who told me that just after the war he had been researching for an Oscar Wilde volume. He had discovered a pile of letters from Bosie in the same room. Felt a bit deflated: it was a small room.

On their uppers

No hard evidence other than my impressions as an external examiner, but I expect that over the years the percentage of upper seconds in final degrees is on the increase. And this during a period when it is widely believed that the level of student motivation to work is less than it used to be, and quite certainly lower than it was during the old days of National Service. Is it that we are teaching better or more intensively? Or is anything to do with the narrower options that we offer our third-year students?

Certainly in every department in which I have taught the extent of staff teaching involvement with students is much greater than it was at the LSE in the mid-1950s: smaller and more frequent tutorial groups, better reading lists, more essays and quicker return together with fewer and better lectures. Combined with narrower and often more technical third-year options such intensive methods are bound to lead to "better" eventual results.

Yet it does not necessarily follow that such students will make as good researchers and it is often quite difficult to explain this to would-be graduate students. I wonder if we need a fresh look at the upper second with a view to dividing it somehow?

Learning till it hurts

Like most serious vocations an intellectual calling involves a special pain. Max Weber is often quoted as saying: "I wanted to see how much I could stand." Making sense of a problem, alighting resist-
ant materials, reconciling alternative perspectives, integrating the awkward instance, recasting the old in the light of the new, shifting to a new level of abstraction—these are all activities which can crucially crack both mind and will.

Nor is there any serious temple, because a problem goes on kicking in the mind like a chili in the womb. Once throw away your intellectual contraptions and you find there is no time out from pregnancy. You are sick of a new possibility.

You have to accept two contradictory disciplines: waiting and not waiting. There is no unambiguous sign of the end of intellectual term; readiness is not always recognizable. Some people are so aware of this that they absorb problems that they absorb them permanently.

The intellectual about readiness is the first pain of the intellectual; the initial "ouches." Some of the most effective and rich intelligences are

occluded by the shadow of this angle pain. The richer the mind the more impossible it is for anyone else to play the role of doctor or confessor, and declare no more is required. The doctors of the church of the intellect have no confessors.

The second pain of the intellectual vocation and its most unavoidable follower follows from the first: loneliness. When something new lies in wait, like birth or death, you have to be alone. There is no figure for whom can be accounted responsible for the opinions and conclusions here expressed.

Graduate students experience this loneliness for the first time and grieve like children suddenly orphaned. They can't accept that there comes a time or a point when nobody knows more or better. The loneliness may be very marginal in their case but as an experience it is no less intense for that. They have to accept that their fathers have

After the boom

After the 1960's sociology boom, when I experienced the sort of public esteem that folklore and history enjoyed during the years of German unification, has come the recession. Sociologists are accused of crimes as varied against public weal as were the freemasons following the French Revolution.

Academics, usually uninformed about British sociology, lend the back to pursuits of frivolity, banality, incompetence and, not surprisingly, find some of each. There are stupid and preposterous sociologists, but I find them no more characteristic of sociology than their counterparts in, say, psychology, history or political studies.

If the complaint is that sociology is intrinsically a non-academic discipline then let it be demonstrated. Should no one care to undertake this task then perhaps it is time to declare a moratorium on sociology hunting and sociology baiting? How about a new sport for the youth called "reading sociology"? Or maybe the media could redress the balance by presenting a play in which the hero, a middle-aged, bearded, Burton-clad, totalled sociologist finds his way, with a research grant, to the local bordello and rescues a Marxist historian from the interpenetration of opium?

Summer vacation at last and the opportunity to start work again on a couple of long delayed articles. Before that though I must attend to three book reviews, act as external examiner for two Ph.Ds, read the final submission of two of my own graduate students, read MSc/Econ scripts from the LSE, assess a number of articles for journals, attend a couple of editorial board meetings, finalize some of the arrangements for the 1976 conference of the Political Studies Association, work out the departmental submission to the SSRC and finish the proposals for a series in political sociology I am to edit.

Why is it that no matter when one accepts a responsibility it always comes home to roost at the beginning of the long vacation? I want to do these things and indeed, enjoy them but they get in the way of research. Perhaps after 15 years of university teaching a total break is necessary during which one should leave the country for a couple of years. This would break the chain of commitments and leave one free to start again. Horrible thought!

During that period I learned enough about university teaching to survive, but never mastered the technique of one historian who, when lecturing the large and very demonstrative student audience, could at will orchestrate the fears, glances, claps and laughter almost into a Mabel symphony.

The open season for chairs is almost finished—and no luck, or at least no chair. Older and wiser heads tell me that a readership here in academia is a brave thing, a position to be envied since I can get on with my work, keep off committees and not have to tolerate idiots. And Devon is truly a magnificent place to live. People actually come here for holidays. Only the other day a pale economic historian from the



Dorset Laibles said with Thomas Hardy are turning to male strippers.

headlins hynad Tounton told me he was holidaying in Exeter University and having a marvellous time in the open-air pool, the tennis courts and a gymnasium set amidst a splendid collection of trees on a campus second to none in the country.

All this and an serious trouble with reviving students to be left for a title? But British universities, must British universities, offer a chairholder the opportunity to create a department—give or take a few old legs—and for that I would gladly give up reading for a few years.

For me the major snag is the performance before a selection committee when any question in any subject clearly my mind wonderfully leaving absolutely nothing in it. Blunt say a few innocents, forget my name, can't remember their names and catch the train home in a daze. Sympathetic colleagues have advised uppers, downers, transcendental meditation, deep breathing, hypnosis, drink, the friendly neighbourhood shrink or a firm and mainly glance at the people on the other side of the table.

Peeping Pats

The relentless march of the permissive society took yet another step towards Exeter recently with the prosecution of a club in Dorset exhibiting male strippers for ladies sated with Hardy. Up to now the university has experienced only a phantom flasher and the usual quota of raincoated peeping Toms. No doubt with the example of Dorset so near to hand the first pep-

ing Put already trembles on the brink of exposure. Much sixth form perversity in the theatre hur concerning stage names for Exeter University's first male stripper and so far as I am aware, non-epitaphical spectators concerning the drawing power of various illuminant amongst the professoriate. Also considerable speculation about the best way to peel a string vest—overarm or shimmy out of it.

Join here

For some months now, along with the rest of the newly elected executive committee of the Political Studies Association, I have been worried about the problem of recruiting into the association the very large numbers of men and women teaching politics in the polytechnics.

The problem is a simple one: many polytechnics do not have departments named something like political studies or government and, anyway, do not list their junior teaching members as is the custom in universities. We do not know the names and, therefore, cannot contact the people who by virtue of their relative isolation might benefit most from the many activities of the association.

Perhaps an item in "Don's Diary" inviting potential members to contact Ian Budge, in the department of Government, University of Essex, might help?

Robert Dowse

The author is reader in politics at Exeter University.

End incomes debate—Aubrey Jones

Economists should end their sterile debate about the rival merits of an incomes policy or manipulating the money supply, Mr Aubrey Jones, former chairman of the Prices and Incomes Board, said in his presidential address to the economics section of the British Association.

The debate was over because the country now had an incomes policy which would inevitably continue, Mr Jones added.

"Let economists' heads—diverted minds, if need be in concert with other social scientists, to the constructive but difficult task of analysing and assessing the degree of inequality in incomes which might command itself to the people of Britain."

Ending his speech on inequality, which set the theme for other papers in the economics section, Mr Jones talked about Government policy. The £6 limit would diminish income inequalities and, from an egalitarian standpoint, it would be desirable for the policy to continue, regardless of its success in combating inflation.

Mr Jones said in incomes policy a means of reducing unjustifiable income differences at the same time

equality. It could secure a rational and reasonable pattern of incomes.

In contrast to Mr Jones' discussion of policy was a paper from Mr Alan Harrison of Strathclyde University, which showed differences in wealth over the years and discussed the difficulties that available figures present to the econometrician.

In essence Mr Harrison's research showed that the top 5 per cent of the wealthy in Britain had been losing their share of the property and shares less quickly than previous evidence had suggested. In fact, very little change in the distribution of wealth had taken place since the 1951. It seemed that the years of the Second World War and the Attlee Labour Government had kept the most significant reduction in the holdings of the wealthy.

Mr Harrison criticised the Royal Commission on the Distribution of Wealth, which recently produced a first report, for ignoring the need for series of figures through time that were fully consistent.

Other papers on the theme of inequality took up both points of detail and the more philosophical questions under the heading, for example, Professor C. T. Sandford, of Bath University, looked in detail at the mechanisms for taxing personal wealth comparing the capital

inheritance tax. By contrast Sir Roy Harrod, the distinguished senior economist, discussed educational equality with reference to selective secondary schools.

Other papers crossed the borders into areas being discussed by the sociologists, the wide questions of social justice and dependence on the state.

If sociology and economics sections found common ground, the other social scientists at the meeting kept within their divisions. The anthropologists discussed several themes, including medical anthropology and the overlap of their sub-
disciplines with the philosophical implications of their subject.

Dr F. C. T. Moore, of Birmingham University, contributed a paper which challenged philosophers for claiming too great a catchment area, calling them intellectual giants. Anthropology was entitled to study concepts as well as philosophy, he said.

In other sections like psychology and geography, the social sciences took their turns with aspects of these disciplines more properly "scientific" in the traditional sense. The geography section, for example, heard a paper on the geomorphology and human geo-

The university at the approach of the 21st century

We are here to consider the problems which will face the universities over the next 25 years. I want to raise some questions which I think are crucial for our future and cannot be answered by a personal guess at the answers. I shall confine myself to universities in advanced industrial countries.

My first set of questions is about the functions of the university: my second, about the future size of the university population; my third, and last, about relations with the state. Will the different functions which historically have been combined in a university remain together in a single institution? The primary purpose of the university exists to serve, is the search for knowledge and fundamental understanding in all intellectual disciplines and the transmission of that knowledge and understanding.

It has also been a function of universities to give to young people from a relatively narrow age group an education designed to develop their general intellectual capacity. In addition, universities have provided a specialist training for their professions which require not merely general intellectual ability but specific knowledge and skill. There are very cogent reasons for the existence within a single institution of these functions—research and teaching, general education and training in professional skills.

The essential of advanced teaching with research benefits both. Universities do not exist simply to transmit knowledge already in the hands of the researcher but to communicate his ideas about the field in which he works—about the field in general and not merely about his immediate research subjects—in a simplified form to an audience of students.

Research on a large scale is undertaken in the Bell Laboratories, in government departments, in specialized research institutions segregated from the university and divorced from advanced teaching. Advanced teaching of high quality can take place in institutions which do little or no research, for example, American liberal arts colleges, for example. An education in general intellectual skills can be provided by colleges which do not claim to teach at an advanced level.

Training in advanced professional skills, moreover, is sometimes provided in university institutions—in technical colleges, colleges of education, staff colleges and the *Grandes Ecoles*. Moreover, there are some institutions which combine research, advanced teaching and professional training, but only in a single intellectual discipline, such as schools of business studies or hospital medical schools.

The concentration within a single institution—the university—of these diverse functions has probably always involved some degree of tension, but the tensions have been intensified in recent years by three developments: the increase in knowledge and the rapidity with which it accumulates; the growth in the size of the university population and the change in its composition; and the increase in cost.

Despite the tensions, however, between the various functions of the university, they have, as Professor Parsons observes, "remained together in a single bundle and have not come to be distributed among structurally separate and distinctive units".

Now, far, will this continue to be true over the next 25 years? Will universities continue to be the place where the combination and balance of functions which has characterized most of their history?

The answer to this question depends on the nature of the demands facing the universities over the next 25 years. I turn now to the second of my main questions.

Will the growth of university population, so marked a feature of the past 25 years, continue in the next 25? Or are we at the end of the period of expansion and about to enter a "steady state" in which the university population will stabilize or not decline?

If expansion continues our major preoccupation will be how to produce new buildings and new curricula for larger numbers and a wider range of abilities and tastes. If it ceases we shall still have worries but they will be different: how to provide scope for fresh blood and new subjects despite a stationary establishment.

Are the problems of the future how to cope with continued growth or how to remain healthy without growing?

There are forces which are unfavourable to continued expansion. On the supply side the unit costs of all forms of education will tend to rise continuously in relation to unit costs in the rest of the economy, for education is a very labour-intensive activity and costs an activity whose only limited increase in output per man can be achieved without destroying the quality of the product.

Neither in teaching nor research are opportunities for achieving a continuous increase in productivity available as they are in other sectors of the economy. Further education, therefore, along with other forms of education, will tend to become a relatively expensive activity.

There is also a restricting influence on the demand side. The absolute number of young adults—the age group from which most students in post-school education are drawn—will in many parts of Western

Europe and the United States cease to increase in the 1980s and in some areas it is expected to decrease. Thus the relative cost of further education will rise and the age-group which has provided most of the demand will stabilize. On the other hand there will be some influences favourable to an increase in demand for further education.

Over the past 50 years, as countries have industrialized and as income has risen, a progressively increasing proportion of young adults has wanted to go on to some form of further education. There are some who argue that when the proportion reaches 50 per cent—as it has in the most advanced industrial country, the United States—then we approach a limit beyond which very little expansion is likely.

Whether there is a limit or whether advanced societies will ultimately provide a post-school education for virtually everyone is an immensely important question. But even if there is a limit—and even if it lies about the 50 per cent mark—many advanced countries at the present time give further

education. The important question is how far this demand will be for people educated at a university, as distinct from other institutions of further education. How far will the demand, in so far as it is for specialists, be a demand for specialists educated and trained at an advanced level—for high-level engineers as distinct from technicians?

So far as advanced technology is concerned, it has been argued that it does not require a large number of very highly trained people to operate it but surely for the administration and general operation of increasingly complex societies we shall require large numbers of specialists highly trained at the level appropriate to a university.

Moreover, this demand will be for training of the type which universities provide. It will be a demand, that is, for an education which, though specialized, emphasizes the principles and concepts relevant to a wide range of occupations rather than training closely geared to the narrow needs of a very specific vocation, and which therefore will enable the student to respond in later life to changes in the skills required of him.

'There is some danger that society will lose sight of the distinctive competence of a university, which is to serve as a centre of learning and free inquiry, of civilization and culture'



education to less than 50 per cent of young adults and in these countries at least the percentage will continue to increase for some decades ahead.

There is another and more interesting possibility. We may be faced in the next 25 years with a fundamental change in the structure of demand for further education. Despite many innovations, the present pattern is still fundamentally one in which 20 years of education are followed by 40 years of work without education.

There are signs in many countries that this is changing. Many people want to start their further education only after a long period of employment, or they want to study part-time while they are still in employment. There are also people who, later in life, need to bring their knowledge and skills up to date and adapt them to new needs, or wish to widen their horizons by taking up new subjects.

Demands of this kind, of course, are not new—some of them indeed are very old—but they have become more pronounced in recent years, and new institutions have been created and old institutions adapted to enable adults to take education when and in what form they want it.

Some educationists believe this is where the future lies; they hope to see a new synthesis between learning, work and leisure; they expect that recurrent, continuing, life-time education will become a major—perhaps the major—form of further education in advanced industrial society.

It is clear, for example, from the success of the Open University in Great Britain, that television—the major source of innovation—lends itself particularly to the education, especially part-time, of adults of all ages and it evidently has considerable potentialities. But the preoccupation of so much further education with the 17-24 age group was not fortuitous.

The capacity to absorb information, to master a discipline, or acquire a skill is greatest in the late teens and early twenties and though it is often said that the adult student has a keener sense of what he wants to study and a stronger motive to succeed, believe it or not, he is less able to study than the young man after years of employment.

But of course, even if these doubts about recurrent education are well-founded, even if there is no radical transformation, there will certainly be some increase in demand for continuing education, particularly in the demand for "post-experience" courses designed to refresh and bring up to date.

For all these reasons, I believe that the course of social and economic change in the remainder of this century will produce an increase in demand for further education even if at a slower rate than in the past. Its strength will obviously depend on how fast incomes rise; and it will make a difference whether the demand is geared to the limitations of private individuals or to the aspirations of private individuals. But the underlying forces in the next 25 years will, on balance, be favourable to expansion. I do not doubt

The education for many professions which used to be entirely or in part "on the job" is now increasingly provided within the universities—social administration and business management, insurance, accountancy, actuarial work; and while no doubt this is in part a product of a mistaken passion for certification, it is mainly a sign that the training for these professions has become more advanced and more academic. The trend will continue.

It is, moreover, precisely these highly qualified specialists who will represent the most pressing demands for post-experience courses.

Finally, among the growing specialist demands will be demands for research as the basis for new technology and to improve methods of dealing with human and social problems. I recognize that these might be met by the growth of a separate, specialized research sector—a quaternary sector beyond the system of tertiary education—and that this has happened in some places. But I believe that this is not the way developments are likely to go in Western Europe.

Some people agree that for these reasons there will be a growing demand for university education, but believe there are not enough potential students sufficiently clever and interested to profit from such an education.

The evidence on this point is ambiguous, but I should guess that among those children who are at present not going to a university there are a fair number who are able than those who do: able boys and girls (especially girls) who, because of family background and attitudes feel it particular desire to enter a university.

University work is intellectually arduous; it is not to everyone's taste. Such attitudes may be difficult to change but my own belief is that economic development will weaken such attitudes and diffuse the ambition to enter a university.

No one can be sure how much untapped ability of this kind exists. There is, moreover, no absolutely hard and fast line of demarcation between those who can and those who cannot profitably study at a university; there is, rather, a debatable borderline of ability and motivation, and at what point in this borderline university entrance should be set is a difficult matter of judgment.

It is the essence of the university that it is selective, but exactly how selective should it be? To what extent should the university attempt to provide for people who wish to continue their education beyond school, but are less well equipped for advanced intellectual study or not strongly committed to it? The character of the university sector, and our answer to this question, is by the distribution of academic ability among potential candidates.

There are advantages in educating a substantial part of what I shall for convenience call the "non-academic" part of the population at the university, in an ethos determined by those who are committed to the pursuit and transmission of learning. Some people of limited academic ability or commitment will, in later life, be leaders of their communities, as city councillors, magistrates, politicians, entertainers, as journalists and publicists.

The life of society will be healthier if these leaders have wide horizons, a sense of continuity, some appreciation of the complexity of problems and the need for intelligent thought in dealing with them, qualities which we like to think are encouraged by a university education.

The contrary argument is that the inclusion of large numbers with a limited capacity for academic work, or only a very weak interest in it, would make it difficult to deliver extensive changes in curricula.

We are all familiar with the long-standing debate whether undergraduate courses designed primarily to enable specialists to master their subjects—still the basis of most university education—provide the best education for the non-specialists.

The latter would be better served, I am urged, by a general education framed specifically to meet their needs—an education which introduced the student to the main fields of knowledge (scientific, historical, political) or gave him an insight into the principal methods of thought; a broad-based education stressing range and diversity rather than depth.

It has also been argued that non-specialists would be adequately served by shorter undergraduate courses, and various proposals have been made, for example, for a two-year course of general education at the end of which those with the appropriate ability and attitude would proceed to a further two years of more specialized but still undergraduate study.

Whether the needs of the able non-specialist would in fact be better met by such courses is debatable. What is clear is that if the university had to frame its curricula to do justice not only to specialists and non-specialists but to a very wide range of academic ability, it would be difficult to maintain a structure of undergraduate courses based on specialized academic disciplines.

Implicit in what I have said is a much more fundamental question which I ought not to shrink: who should decide which external demands on the university should be met? Who should define them? And what is the nature of the contribution which the university by its very nature can make to meeting them?

The principle that universities should be responsive to the needs of society (in some sense or other) that very imprecise term) is not in question. Throughout their history, universities have been subject to many immediate pressures from the particular societies in which they exist—from political and religious movements, from the professions, from a wide variety of ideologies and causes, as well as from the state.

Throughout their history they have had to reconcile these immediate local pressures with their loyalty to their primary purpose—the pursuit of learning.

What is new about the present situation is that the state is now by far the most important source of external influence; because so many universities depend heavily upon the state for finance, the state is in a strong position to induce the universities to accept its definition of social needs, the judgment of the public interest is now concentrated in a single institution to a much greater extent than in earlier times, and that institution one of exceptional power and influence.

And even in countries like my own where universities enjoy an educational independence of freedom in deciding what subjects to teach and how to teach them, even in the countries where the autonomy of the universities is respected most punctiliously, we may expect increased pressure on the universities to encourage those activities "relevant to the national needs", to adapt their curriculum to meet the needs of the economy for trained manpower, to produce what have been described as the "right courses at the right prices".

In these circumstances, there is some danger that society will lose sight of the distinctive competence of a university which is to serve as a centre of learning and free inquiry, of civilization and culture, centre for the unfettered exchange of ideas, as a place where men can attempt to the best of their ability to discover and teach the truth.

If the university has to conform too narrowly to the views of what is important which happen to be fashionable or dominant at the moment, if it is induced to direct too many of its resources to meeting the immediate needs of society as these are interpreted by the state at a particular point of time, then we shall find that the ability of the university to perform its central function has been impaired and its capacity to produce creative and original work weakened. It will fail to make the contribution to meeting social needs which only the university can make.

Abridged text of the speech by Mr. Habakkuk to the 1968 conference of the International Association of Universities, held at Oxford University, to the opening plenary session of the 1968 quinquennial conference.

Sue Reid on Sussex University's admissions team

They have their entrances

The sign on the door reads "Please Enter". School leavers, mature students and the odd undergraduate drop-out all do so, each asking for the same thing—a place at Sussex University—and each needing the answer from Ted Nakhle, the admissions officer.

Behind an office desk in the campus administration block, Sussex House, he gives out some good news, and some frankly pessimistic, while deftly trying to help the hopefuls who have managed to miss out the Universities' Central Council on Admissions' selection process altogether.

This year Sussex University made 1,760 conditional offers to potential arts and social sciences students. But with 750 places to be filled, and 300 of these already confirmed for people with the necessary A-level grades, the final intake figure has to rest around the 450 mark.

However, Mr Nakhle is quick to point out that in August, as his office reaches fever pitch, it is often a matter of trying to push the numbers up to target in the less popular subjects instead of pruning them down.

Sadly, on the science side, the low numbers are all too obvious. Sussex made 1,500 conditional offers this year and hopes to attract 475 new students at the start of term. But with A-level science results often under par and many school leavers totally unaware of the university's potential as a science centre it could be a matter of increasing the intake through the UCCA clearing scheme or falling short on students in some science subjects if the standards are too low.

The university is fiercely protective about its reputation in science. Mr Nakhle said: "School leavers tend to think of us as purely arts-based but this is not true. We are very concerned at ignorance about science courses we offer."

In fact, Sussex is the only university in the country to offer nanotechnology as an undergraduate course. It also has 450 postgraduate science students, more than 25 per cent of its science student population. Research fellowships for 1975-76 total 114 and a year ago it ranked first in the country in terms of the total value of Science Research Council awards for physics, third in mathematics, fifth in the biological sciences and sixth in chemistry.

The university is unwilling to take students with poor A-level grades, even if certain subjects lack students. Mr Nakhle says: "As we have discovered from past experience they often find themselves struggling on a degree course. It is for their sakes we have to say no."

But this ruling does not stop outside pressures being put on the admissions officer; his staff and the university's school selectors. Every year letters containing insistent pleas from parents and friends of borderline applicants find their way to Mr Nakhle's desk. Some come, surprisingly, from influential sources, often in the academic world.

Mr Nakhle and the selectors consider them all but there is a feeling that the 18-year-old who cannot write his own letter leaves a very bad impression.

Mr Nakhle is much more tolerant towards the potential students who turn up at Sussex and walk through his doorway. Some are simply impatient and want to know if they have good A-level grades and before UCCA contacts them officially. Others have missed out the UCCA process and are hoping for an instant decision about a possible place.

Some of these surprise visitors are lucky, especially if they have good A-level grades and are interested in a course with vacancies. Only two weeks ago a hopeful student explained that he had reasonably good A-level passes but had failed to complete a course in dentistry at Birmingham. After taking a year off he now hoped to read bilingual science. Could Mr Nakhle help him?

He was told his A-level grades were suitable and would have been promised a place by Mr Nakhle immediately if he had not dropped out of one university course. However, Mr Nakhle sent him to the school selector for a talk, with every hope of him being admitted.

But it is hundreds of telephone calls which make life extremely difficult for Mr Nakhle and Miss Caroline Broadway, the assistant admissions officer. The calls, from parents and applicants, seek advice on trying to get into the university. A-level results and information on every aspect of university life.

They have to be coped with even if the caller only asks: "How do I become an undergraduate?" The sort of question that is an appointment officer's nightmare in mid-August.

Meanwhile the paper work goes on. Mr Nakhle and Miss Broadway split the admissions work of the Sussex University schools between them and watch hundreds of forms in numerous filing trays slowly dwindle as the month goes on.

By the third week in August, after two weeks of unrelenting pressure from the first day of A-level results, the process is nearly complete. Subject numbers have been checked and cross-checked and it is time to turn to the UCCA clearing house scheme.

The school selectors work with Mr Nakhle to assess just how many students are needed in which subjects and together they fix the minimum A-level grades acceptable in each case. The clearing house system may have a juggling act on its hands, according to Mr Nakhle, it has produced some outstanding results for Sussex.

Before the clearing house stage, a special effort is made by the admissions staff to consider each borderline case. Some are persuaded to change their choice of course and others are allowed to because of an outstanding school report or other mitigating circumstances.

One course applicant this year, hoping to study social science, failed his economics A-level and gave rise to doubts about his literary ability. However, he succeeded in passing double maths with A grades and now Mr Nakhle has offered him a place on a maths degree course with an economics subsidiary.

Unfortunately school reports can often play a part in the rejection of a borderline case. All too often they are just a few lines without any personal reference. This kind of report does not help the university or the candidate.

Kidnap hits animal research

The kidnapping of four white students from the research station in Tanzania run by Dr. Jane Goodall has effectively ended some of the most important field research currently being done in animal behaviour.

Dr Goodall has returned several times to the site of the Gombe Stream Research Centre on the shores of Lake Tanganyika, but always with an armed guard. She has gone only to retrieve the research materials there; research itself has been almost completely abandoned just when the first results of earlier work were beginning to be published.

The research at Gombe was primarily into chimpanzees, as well as into baboons and real colobus monkeys. It is a measure of the intensity of the work that some individual animals had been under continuous observation for up to 10 years. Their continuity will now be lost, for the small team of five African researchers now there, also under armed guard, will be unable to maintain the previous levels of observation.

The four students, three American and one Dutch, were kidnapped on May 19 by guerrillas of the People's Revolutionary Party from Zaire and the lost was released six weeks ago. Jane Goodall's work on chimpanzees at Gombe was originally sponsored by the anthropologist Louis Leakey. After she had started the collection of her data she became a graduate research student under Professor Robert Hinde of the Department of Animal Behaviour at Cambridge University, and in 1968 published her doctorate as *The Behaviour of Free-Living Chimpanzees in the Gombe Stream Reserve*.

Since then she has written a few academic papers, but her main work has been in popular books of enormous importance in educating and awaking people's interest in problems of the conservation and behaviour of wild animals.

The achievement of Gombe, according to Robert Hinde, has been the creation of chances for research students to deal



with mother-infant relationships, sexual behaviour, group structure and dominance, and the ecology of the area, much of which is just reaching publication. "Part of the scientific importance of Gombe," he said, "was that it was one of the very few reserves in which individual animals were followed over a long period. The greatest tragedy is that the continuity of the long-term data has been lost."

In recent years Gombe's main university connexion has been with Stanford and Professor David Hamburg who negotiated with the revolutionary group for the release of the kidnapped students, all of whom were Stanford undergraduates doing six months' "base-line" research as part of their courses in zoology or human biology. Now the Stanford connexion is virtually ended, partly because no students

or researchers can go to Gombe again. In the early days at Gombe, Jane Goodall saw no chimpanzees; they first came to the research station by accident and were later lured there with bananas. "A grant of £3,000 to buy bananas was one of the most bizarre things I have ever requested," Professor Hinde said.

It was soon realized that bringing the chimpanzees to the research station was distorting their social structure. The emphasis changed to observational field work, in which only interference with the natural behaviour of the animals was carefully avoided. Only when an animal was seriously ill did the researchers intervene.

In this field research, most of it in jungle conditions, African assistants were of immense importance. Field work was done in small groups of two or three after a lone researcher was killed several years ago.

The Africans, who had much valuable local knowledge, learnt rapidly and successfully scientific methods of recording observations that were previously unfamiliar to them. They became an indispensable part of the research effort. Margaret Thornehill, who was there for two years carrying on continuous observation of chimpanzee behaviour, said that she would have been impossible without their help.

An immense amount of work remains to be done on the material already gathered. So far it has primarily been used as background to those theses on particular topics that are reaching publication. Dr Goodall is still at the University of Cambridge, where she is a professor of human biology, as she is at the university at Stanford, but hopes to continue with both prepping scientific papers from material gathered, and field work. However, the disturbance caused by the kidnappings has made it uncertain that she will return to continue her chimpanzee research from which she made her reputation.

Alan Munton

University link welcomed by college teachers

Bingley College and Ilkley College have agreed to enter into a scheme of academic cooperation with the University of Bradford and have become associated colleges of the university. Senior staff of the colleges and the university have had extensive discussions as to the form of the association.

What is planned is a measure of cooperation formerly impossible due to the different status of university and colleges of education. The small size of the area, together with established contacts between the university and colleges, has made this possible. It is hoped that the MSc in education—favour a degree of participation and discussion which may not be possible in large areas.

College teachers who took part in discussion about course links commented how valuable it is to be able to talk to members of the university.

Since the university's School of Educational Studies was solely postgraduate until 1974—when it added a part-time evening course leading to a BSc in applied educational studies—there is little overlap with education courses in the colleges.

Some cooperation has already been established by inviting specialists in the colleges, in psychology and sociology, to lecture for the university's BSc in applied educational studies. On the university side, advice and assistance will be given with a course in research in education. At least two main schools of the university are considering integrated courses in which education, taught in the colleges, will play a major role.

Complementary to this university's MSc and BSc degrees in education, which give a rather greater emphasis to theoretical studies (psychology, sociology, social psychology, and research methods, and various options for BSc students), Ilkley has now offering a part-time BEd course which has a somewhat more practical orientation. This has drawn more than 100 inquiries within a few

began even before the university was approached as a validating body and, although their courses differ essentially in many respects, there is some provision for transfer at different stages. It is hoped that this will develop also with the university and other institutions.

The courses follow the now familiar national pattern. Those offered in the associated colleges include the DipHE which requires two A-levels at entry.

The colleges are offering a diversity of BA and some BSc courses. The Certificate of Education course continues for those students who have not obtained two A-levels, but those who perform outstandingly well in the first two years will be offered opportunity to continue the BA, BSc, BEd ordinary, or BEd honours degree. Students entering with the intention of taking a degree will be free to transfer to the certificate course or to leave with a diploma, should they wish to do so.

Staff are already beginning to think of their activities in a wider educational context. In September a regional conference will be held on the subject of the middle schools. This has been planned by an informal regional working party.

Like the working party, conference members represent all interests. It should give teachers and students of the colleges and university schools of education a better insight into the problems of the middle schools and enable them to set up some research with the aid of teachers who can still spare the energy and time for it.

**Ruth M. Beard,
Barbara M. Mayer,
W. Ray Stirling**

Professor Ruth Beard is chairperson of the Postgraduate School of Studies in Research in Education at Bradford University. Miss Barbara M. Mayer is principal of Ilkley College of Education, and Mr W.

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Excellence or equality?

"There is some danger that society will lose sight of the distinctive competence of a university, which is to serve as a centre of learning and free inquiry, of civilisation and culture, as a centre for the unfettered exchange of ideas, as a place where men can attempt to discover and teach the truth", Mr H. J. Habbakuk, vice-chancellor of Oxford University (page 6).

The university ideal has become distorted. Universities have pursued expansion into vocational and professional fields for which they are not suited. The university ideal has given rise to a hierarchy of esteem in which human activities are graded. It has shrunk the area of freedom available to students".

Sir Alex Smith, chairman of the Committee of Directors of Polytechnics and a member of the University Grants Committee (page 8).

"The slowly dawning realization that one's going, one's departure is not going to make the first division, will not have the resources or the students or the encouragement from public authorities in becoming a world class institution, can lead to a sense of frustration and resentment". Professor Martin Trow (THES, August 29).

"Higher education has taken the place of defence—it is at the bottom of the league", senior civil servant. As the 1975/76 academic year starts in Britain, some of the themes that seem likely to continue to dominate the continuing debate about the future of higher education are already emerging, and they are much more sharply etched: the sudden realization, even by egalitarians that standards of excellence in universities will soon be genuinely threatened and the resentment of the polytechnics at the superior status and funding of the universities and the lack of any policy at all for the colleges, each of which are being made more acute by the sudden slowing down of expansion and the even fiercer squeezing of budgets.

At Lancaster University this week the distinguished International conference has been discussing "Excellence or Equality—A Dilemma for Higher Education?", a subject

which neatly encapsulates and synthesizes the new themes of the mid-1970s.

Neither Sir Alex Smith nor Mr Habbakuk are in the habit of making long speeches to the annual round of academic conferences. Yet each spoke with conviction, even a passion, that was all the more distinctive for being unexpected. What is equally interesting is that their views seem closer than even they themselves might suspect.

Sir Alex was universities—and wants them to fulfil the same rule that Mr Habbakuk acknowledges the important role in further and higher education of institutions other than universities. Each is critical of the increasing role of the state and each is anxious to extend opportunity to students; in addition he asks whether it is university, college or polytechnic excellence.

Some common sense and a sense of fraternity are therefore beginning to enter the debate about the directions in which universities, colleges and polytechnics ought to be moving, and they are remarkably (and perhaps frustratingly) similar to those shared by Mr Cressland and Mrs Thatcher.

Universities, many of which are rapidly assuming the role of polytechnics as they hasten to demonstrate how much better they are at being polytechnics than the polytechnics, ought perhaps to consider now whether continuing expansion is in their best interests. A virtual halt to growth might be the best method of protecting their unique and special roles, especially in research.

As student numbers grow, colleges and polytechnics would then be given a real opportunity to show their mettle, especially in teaching, and to become more efficient institutions. The waste of public money in many departments that some of them have now. As Professor Trow argues this week (page 2), excellence and equality can co-exist in a mass system and such an arrangement might be the best method for Britain to continue to maintain the one and extend the other.

Dangers of the dole

The National Union of Students next week initiates a new campaign on educational expenditure, and to particular it will be seeking a substantially more generous grant system. It is clear that many influential and significant figures in academic life share with the NUS its belief that an improved means of supporting students is needed, and there is general agreement that the Andersson principle has been seriously eroded.

Interviewed on radio recently, Lord Ashby, former master of Clare College, Cambridge, talked of the "Bromstonian lethargy" of the Department of Education and Science in doing anything about undergraduate grants" (see page 3), while Lord Annan, provost of University College, London, in a contribution to a new book, *Universities in a Changing World*, wrote that both Conservative and Labour governments had "neglected student grants when faced by economic difficulties" (page 31). He asked: "Why should students not attempt to compensate themselves for the losses which they have sustained through the effect of inflation on their grants?"

The NUS has already used the perfectly legal device of telling students of their right to claim unemployment benefit if they cannot find work during the vacation, a right exercised this year by some 99,000 students.

Lord Ashby, who could not conceivably be accused of being a student hater, has continued this practice as a "racket", pointing out that undergraduates cannot simultaneously be described as unemployed and as full-time students. This is

the student grant in 1974-75 was only £58; in 1975-76 it will be only £70. Furthermore, the exercise of one's full legal rights is a perfectly respectable technique for securing social justice.

But none of this alters the power of Lord Ashby's principal argument that the NUS has endorsed a dangerous and misguided practice. The effect must be the erosion of a basic principle of our welfare system and even the introduction of new grants systems which would not be at all to the liking of the NUS.

He and Lord Annan both discuss the idea of student loans, either of a full or partial nature. Loan schemes seem attractive and in the long run may prove irresistible, yet this is a development to which the NUS and others in higher education would be implacably opposed.

Loan schemes are seen to work well in Europe. In France, America, while in Russia, every student gets a full and adequate grant; but the NUS ought to be little less than about the Soviet alternative. Five factors determine the size of a Russian student's grant: scientists get more than artists (twice as much, in fact), good students get more than poor students, conscientious students get more than feeble ones, higher level students get more than first years, and wealthy parents are expected to pay the full amount.

Perhaps understandably, the NUS is reluctant to accept Lord Ashby's arguments, but it would do well to pay them some heed and adjust its tactics accordingly. As with many other issues, a little attention paid to its public stance might help the

LETTERS TO THE EDITOR

Turkish universities

from Mr D. R. Bell
Sir—I find it difficult to accept that David Birchard (THES August 22), now of Nuffield College and late of The Guardian, can have produced on first-hand observation the mixture of downright falsehood and tendentious diagnosis of the situation in the Middle East Technical University in Ankara.

For example, he speaks of "Turkey's other universities, which are crammed into ancient buildings with pitifully few facilities". Has he visited the recently built campuses of Hacettepe University and the Boğaziçi University? Clearly not.

It is anything but my intention to suggest that the Turkish universities are without problems or that these problems can be solved by the arguably necessary provision of police and troops not only in METU but elsewhere.

His diagnosis would have benefited had he brought to your attention the fact that innocent people have been shot, killed and injured in student riots; in addition his diagnosis entirely ignores the academic roots of the problems.

The first sensible thing to suspect in a boycott of examinations is that the absent students did not think they would pass anyway. The imposition of standards by some faculties to which a large proportion of students cannot attain is a key factor in the present Turkish situation and in the present Turkish situation.

Civil Service fees

from Dr D. E. Eversley

Sir—May I strongly support Mr D. L. Munby's letter (THES August 29) regarding the ridiculous changes in the method of paying Civil Service College lecture fees. He has studied the exact procedures much more closely than I have, though I independently came to the conclusion that it was just not worth the effort.

Incidentally, the same method is used (and has been used for the last year) by the SSRC, from whom one gets a gross fee of £12.50 for a meeting lasting all day preceded by at least two or three days of reading applications, bids for studentships, etc. They have got through the same business of "grossing up" the expenses and taxing the lot at 35 per cent.

The inquiry lies in this. For all other work which I do in my spare time, leave days, evenings and weekends, I am allowed to put the proceeds on schedule D.

As such work normally involves the upkeep of a different part of one's library than one's normal occupation, and since all the usual exemptions (study allowances, subscriptions, etc) are applicable to schedule D, the effective rate of tax under the old system was, say, 25 per cent, so that one counted on being able to get through the same business of "grossing up" the expenses and taxing the lot at 35 per cent.

Now that the attempt is made to put these earnings on schedule E, the net proceeds sink to about 10p an hour. As it happens, I do the SSRC work for reasons other than monetary gain, but the Civil Service College business is more serious because it rarely pays off in terms of student feedback.

Therefore a trip to Sunningdale (even with expenses paid), at effectively £5 for the best part of a day's work, one feels that there must be better ways of taxing such efforts.

Needless to say, private institutions, newspapers and journals, and so forth, have not resorted to this method of predetermining one's tax gain. I can, of course, not account to get some of this back again, but this in itself is an expensive business.

It is time the whole matter was looked at again. Mr Munby's suggestions of a total boycott will, alas, act on deaf ears as far as those people are concerned who have to rely for a considerable part of their shrinking standard of living on this sort of opportunity, even if he and I can afford to say "no thank you". Yours faithfully, D. E. EVERSLEY.

stems more from difficulties of the school system and the lack of a university tradition than it does from any narrowly political source.

This situation is exploited by both left and right-wing elements and, naturally, the government being right-wing, it is invariably the left who suffer a willing martyrdom in their attempt to politicise the universities.

What is encouraging in this sad situation is that there are Turkish academics who, whatever their views may be as Turkish citizens, are in their professional capacities heartily sick of any attempt to use their institutions for political purposes. I further thing which surprises me in Mr Birchard's article is his bland assumption that METU is Turkey's best university. If anything it is a product of the honeymoon between Turkey and the USA over a decade ago which, as we know, has now led to separation and may lead to divorce.

Does Mr Birchard really see no connection between this year's events at METU and the current expulsion of American military personnel from Turkey by the Demirel Government? What on earth do they read nowadays in the Nuffield senior common room?

Yours sincerely, DAVID BELL, Department of Logic, Glasgow University.

Entry changes

from Dr J. M. Frayn

Sir—Professor Hayek's suggestion (THES August 29) that special conditions of university entrance should be permitted to students capable of making an original contribution to knowledge is attractive. Yet surely we should not go out of our way to make life difficult for those so endowed?

Under the existing arrangements many students make considerable sacrifices in order to study. To impose additional burdens upon those who seem likely to be the most progressive members of our society would imply a strange sense of values. Or has our nation no future except as an assembly line, producing robotic brains in response to artificially stimulated demands?

Yours sincerely, JOAN FRAYN, Arthur Road, Kingston upon Thames, Surrey.

Sanskrit planning

from Mr D. W. Barron

Sir—Lord Crowthier-Hunt's remarks on the need to respond to national requirements have aroused many reactions, but the prior must surely go to the University of Oxford for its proposal to fill chairs in Anglo-Saxon, Sanskrit, interpretation of holy scripture and exegesis of holy scripture. What a splendid piece of manpower planning!

Yours faithfully, D. W. BARRON, Department of Mathematics, Southampton University.

Science degrees

from Mr Jon Court

Sir—Professor Hunt is so right to his assessment that the top echelons of the Civil Service are incapable of recognizing their deficiency of technically competent people. For direct technical jobs, their condescension to the technological area is to expect a level of simple arithmetic and of such men of science is Galileo and Dr Bronowski. Not for them any acquaintance with the works of Lagrange, Halesberg or Hook, etc.

However, his desire to see science-trained graduates. In more varied social positions will not be gratified just by parading more students to a substantial subject. A necessary condition is a change in the course contents of most science degrees. There must be less emphasis on the needs of the prospective post-graduate researcher and the inclusion of a substantial study of the social, economic and political role of science and technology. Yours sincerely, JON COURT.

Soviet students

from Mr H. D. Hughes

Sir—Moscow seems a peculiar venue for the vice-chancellor of Oxford University to choose for an attack on recurrent education and the adult student (THES, August 22). Surely he must be aware that for many years entry to universities in the Soviet Union has been normal up to 35 years of age, and that a high proportion of students in Soviet institutions of higher education are workers studying part-time and by correspondence, with special arrangements for paid educational leave for periods of study and examinations.

For social and educational reasons, preference is often given to students with some years of experience of work and public service after leaving school.

It is to be hoped that the delegates from the East European and Scandinavian countries in particular, with relevant knowledge of the merits of mature students, responded with vigour to his address. One can imagine the reaction in senior common rooms here if the head of Moscow University had launched an attack in Oxford on the collegeists' system of student selection, with similar lack of experience on which to draw.

Yours faithfully, H. D. HUGHES, Principal, Nuffield College, Oxford.

Transfer credit

from Mr W. J. Dey

Sir—The secretary of the Standing Conference on University Entrance has taken place in a nation that has a long tradition of democracy, a deep distrust of class hierarchy and a great faith in education. Of course the middle- and upper-income groups are still over-represented in higher education in the United States. An 18-year-old from a family earning more than \$15,000 a year is almost four times as likely to attend college as an 18-year-old from a family earning less than \$3,000 a year.

According to figures derived from the 1972 Current Population Reports, published by the US Bureau of the Census, in autumn, 1971, 12.3 per cent of 18 to 24-year-olds from families with incomes of \$3,000 a year or less attended college; 14.6 per cent of the same age group whose families earned between \$3,000 and \$5,000 a year were in college; 14.5 per cent of those from families with incomes between \$5,000 and \$7,500 (the only deviation from the pattern that the higher the family income the greater the likelihood of college attendance); 18.3 per cent of 18 to 24-year-olds from families that earned between \$7,500 and \$10,000 a year; and 27.6 per cent of those from families with incomes of between \$10,000 and \$15,000 attended college. Finally, more than 46 per cent of young people from families with incomes of more than \$15,000 a year were in college.

Although community colleges are supposed to cater for a new type of student, these same figures show that only a quarter of students from families earning less than \$7,500 attended public community colleges, so even they have a disproportionate number of students from the middle and upper-income groups.

These figures, if anything, understate the class bias in American higher education. The report of a panel on financing low-income and minority students in higher education set up by the College Entrance Examination Board and published in 1973 estimated that more than 60 per cent of 18 to 24-year-olds from families earning over \$15,000 attended college, and 45 per cent of those from families earning between \$10,000 and \$14,999. A working paper prepared for the panel also showed that 68 per cent of all full-time undergraduates enrolled in American colleges and universities in the academic year 1971-72 came from families that earned more than the average family income of \$9,623 a year. For families with high school graduates.

It is sometimes argued that fewer young people from lower-income families attend college because they place less value on a college education as a result of their cultural environment. However, while it is true that a smaller proportion of high school graduates from lower-income families is interested in attending college, are less successful in achieving this ambition than high school graduates from more prosperous homes.

A study carried out by Joseph Fronkman for the United States Department of Health, Education and Welfare found that while an extract from Strategies for Post-Secondary Education, published last week by Croom Helm at £5.75, The author was previously deputy editor of The THES and currently

I would suggest that a thorough study of mobility is required; there have already been studies by various bodies (e.g. Council of Europe) of this problem. The British Council is deeply involved in expediting mobility and is aware of the SCUE which can arise. It seems somewhat unfortunate that the SCUE has not been the OU proposals through the proposed attitude and lack of the spirit of adventure. SCUE should rightly advocate policies of which the possible consequences have been explored.

Yours faithfully, W. J. DEY, University of Exeter, Devon.

The expansion of university education in the US since 1945 has probably intensified, and has certainly legitimised, the existing social hierarchy.

Education fails to remove class barriers in American society

The middle classes are over-represented in higher education to almost every country in the world, even in the communist nations with their commitment to the advancement of the proletariat. It is generally recognized that in almost every case the expansion of higher education—or at least of traditional higher education—institutions—benefits the middle classes in the short term.

Of course, it is possible to argue that greater opportunities for young people from middle-class families to attend universities and colleges that were once the almost exclusive preserve of a tiny elite represents a social advance. In any case this uncomfortable fact is usually mitigated by the strong, if less tangible, belief that in the long term the expansion of higher education will extend educational opportunities to all classes in the community and so advance the cause of equality.

The experience of the United States is perhaps the nearest we can get to a real test of this hypothesis: the expansion of higher education has proceeded further in America than in any other country, and this expansion has taken place in a nation that has a long tradition of democracy, a deep distrust of class hierarchy and a great faith in education. Of course the middle- and upper-income groups are still over-represented in higher education in the United States. An 18-year-old from a family earning more than \$15,000 a year is almost four times as likely to attend college as an 18-year-old from a family earning less than \$3,000 a year.

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Yours faithfully, W. J. DEY, University of Exeter, Devon.

46 per cent of high school graduates from families with incomes of less than \$3,000 declared that they were planning to attend college, in fact only 17 per cent actually were studying in college the next year.

In the case of high school graduates from families with incomes of more than \$7,500 71 per cent intended to go to college, and 57 per cent actually did so. So the percentage of high school graduates from the poorer homes who achieved their ambition of attending college was only 37 per cent, while four out of five of the high school graduates from more prosperous homes achieved their ambition.

All these figures and studies cast serious doubt on the conventional (and, for the doubly privileged, comfortable) explanations for the under-representation of young people from lower-income families among students in higher education.

For instance, it appears that a high school graduate from a poor family who is eager to attend college is discriminated against in access to higher education—on top of the structural discrimination he suffers through his membership of a social class that for a variety of complicated political, economic and cultural reasons places a lower priority on college attendance than more prosperous classes in society.

It also appears that in spite of the claim that America is a land of individual opportunity, in which class distinctions have no place, higher education in the United States displays the same class bias as the most elitist, but also more meritocratic, higher education systems of other countries.

There are two possible responses to this situation—apart from the view that the apparent bias is only a reflection of the greater intellectual powers of the middle and upper classes, and to any case justified by the need to maintain a conservative social order (a view that must be unacceptable in America).

The first is a limited response and perhaps for this reason most popular among educators in the United States. It is concerned with the equity of the existing arrangements, not with the cause of equality. The primary concern is to convert the social classes which benefit from higher education are also the classes that bear most of the financial cost of providing higher education, and that the taxes paid by the majority do not pay for the benefits received by a minority.

Carried to its logical conclusion, this argument can be a powerful support for increasing tuition fees, which has the contradictory effect of making the present financial arrangements more equitable but of choking off future opportunities for students from poorer families.

This apparent contradiction can be mitigated but probably not completely resolved by two policies: the introduction of a more progressive tax structure which would allow the state to continue to subsidize higher education without at the same time subsidizing middle- and upper-income groups, or the creation of a comprehensive system of student grants based on a parental means test. Both policies would probably run into major political as well as practical difficulties.

The second response to the acknowledged class bias of the student body in higher education is to actively seek to reduce this bias by some form of positive discrimination in favour of students from lower-income groups.

This course of action would obviously create important technical difficulties, but the appearance of affirmative action programme in higher education is a way to reduce this bias by some form of positive discrimination in favour of students from lower-income groups.

One of the most remarkable features of the development of American higher education since 1945 is that in spite of the massive expansion of student numbers, the social hierarchy, of which middle-class bias is one symptom, has been maintained largely unchanged—between students and non-students and between institutions at different levels.



Dental students of Washington's Howard University, a predominantly Negro institution that has accepted students of all races since its founding in 1867.

appears to contradict the optimistic view that time and further expansion of the system will reduce the present bias in favour of the already privileged and advance the cause of the underprivileged. On the contrary, it is extremely difficult to argue that the academic system can remain for long uncontaminated by the unequal social order that has given it birth.

Indeed there is a strong argument that the fates of the academic system and of the prevailing social order are mutually intimately linked today than in the past, because the production of knowledge which is the main function of the academic system, is much more central to social development.

Where knowledge was once concerned with the discovery and description of the natural order, today it is concerned with the manipulation of this understanding in the cause of social development and economic growth.

This activist and instrumental conception of knowledge is held as much by the left-wing socialists who regard his knowledge as an instrument of social change, as by the right-wing economist who regards his as an instrument to ensure the smooth working of the capitalist system. So the university has become a more direct servant of the state, and this has been reflected in the massive investment that the state has made in the expansion and improvement of higher education.

In another sense, too, the academic system has been incorporated more directly into the wider social order. Knowledge is not only the product of the academic system, from the point of view of the individual citizen, it is capital that bears interest to its possessor as surely as money capital.

Indeed there is a strong argument that intellectual capital may even in some cases outrank money capital in its value to the individual in his struggle to maintain or improve his position in society.

Professor Alain Touraine, a French sociologist with an intimate knowledge of American higher education, has written: "The role of education (at the end of the nineteenth century) could not be a central one, for the real selection process of men capable of plunging into the adventure of progress took place in the market. It was there that people's energy, initiative and enterprising spirit were put to the test. Today, on the contrary, the academic system is the main agent of social hierarchy." This view, of course, has profound implications for arguments about social mobility: it is at least possible to argue that a greater possibility of social mobility existed in the cruel and unmitigated capitalist society of the Rockefellers, Carnegies and Harrimans, than in the milder but more controlled society of today in which the aspirations of individuals have been repressed in favour of the needs of the system. Today the academic system does not only reflect the social hierarchy: it is also the most active agent in its replication.

All the available evidence makes it quite plain that America does not offer every 18-year-old an equal opportunity to attend higher education, except in the negative sense that no law forbids anyone to apply for entry.

It is also fairly clear that the expansion of education since the war has had little effect on social and economic inequalities, and so can be described as socially regressive in only a limited sense if greater equality, of opportunity and of outcome, is made the test of progress.

While many more students from lower-income homes go to college, they are likely to attend lower-level institutions. All that has really happened is a lengthening of the period of formal education for everyone, but the class hierarchy has been unaffected. While the 18-year-old from a working-class family may now go to community college instead of straight into employment, his continued stay in the middle-class suburb will probably go to graduate school, instead of leaving college after receiving his BA. It is the old and familiar story: plus ça change, plus la mème chose.

Neither is the second, essentially Marxist, critique of American higher education totally satisfactory. As a theoretical framework I prefer to the broader liberalism of the technocratic of the system, but a guide to the future it is almost equally sterile.

So in community colleges social and academic pressures force a majority of students to enrol in transient programmes and the only minority will ever succeed in transferring to a four-year college or university. However, to admit this fact, and to allow for it in the administrative and academic organization of community colleges would seem somehow un-American, in denial of the possibility of upward mobility and the acceptance of a more liberal society. The liberal idea is maintained at the cost of unequal reality.

One motive for this attitude is perfectly honourable: the desire to reaffirm the potential of education in the creation of a democratic society. The other motive is less honourable: a snobbish attachment to the "great works". In a society corrupted by commercialism and defiled by the necessary alienation of the mass of the people. So every teacher in higher education must be a professor; and every course a degree programme.

Some Americans, of course, are aware of the hypocrisy of such liberalism. For example, the former Governor of Ohio, James A. Rhodes, argues that: "Our snobbish, impractical, intellectually dishonest and misguided education system is leading us to social and economic ruin." He attributes the cause of many American problems to lack of proper training, and so to the inadequacy of the system of education.

It can be argued with conviction that many American colleges are still attempting to offer a curriculum suitable for an elite system of higher education in an age of mass even universal higher education. The liberal idea is maintained at the cost of unequal reality.

It is rather as if the nations of Europe had never discovered the convenience of paper money and credit, and so been forced to rely on an increasingly debased gold and silver coinage as the means of exchange.

Of course there are in the United States educational institutions that in Europe would be regarded as part of "further education". Yet "further education" like "class" is almost a taboo concept in America, as if it were un-American to make a distinction between "further" and "higher" forms of post-secondary education.

The only result has been to alavate "higher education" into the middle-class ideal of "college" and "degree", and to grade "further education" which potentially offered a more popular and more relevant vision of education.

The expansion of higher education in the United States since 1945 has undoubtedly allowed many thousands, even millions, of young people to attend college, who would otherwise have been forced to go straight into employment. However it has not led to greater social equality. In fact this expansion has probably intensified, and certainly legitimized, the existing social hierarchy in America.

that, while such a critique is broadly acceptable to most Americans, academics, politicians and to the general public, it runs contrary to many deeply ingrained assumptions about the American experience, and so any pillars that are based on such apparently alien values are likely to be rejected.

A second objection is that it is a negative, indeed almost fatalistic, theory. The only path of future development that it suggests is cataclysmic. It implies that all short-term reforms and improvements are compromised from the onset and offers a stark choice between the reactionary status quo and revolutionary turmoil.

Yet this Marxist analysis has some value, if only because it exposes the irrelevance and even the hypocrisy of the liberal assumptions on which the development of higher education has been based. A stark choice between the reactionary status quo and revolutionary turmoil.

So in community colleges social and academic pressures force a majority of students to enrol in transient programmes and the only minority will ever succeed in transferring to a four-year college or university. However, to admit this fact, and to allow for it in the administrative and academic organization of community colleges would seem somehow un-American, in denial of the possibility of upward mobility and the acceptance of a more liberal society. The liberal idea is maintained at the cost of unequal reality.

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NOTICE BOARD

Chairs

Dr M. Cordey-Hayes, member of the multi-disciplinary team researching into problems of the built environment at the Centre for Environmental Studies, has been appointed to a new chair in transport assessment in the School of Automotive Studies, Cranfield Institute of Technology.

Dr C. C. Bird, senior lecturer at the University of Edinburgh, has been appointed professor and head of the department of pathology, University of Leeds.

Awards

Violet Vaughan Morgan Commemorative Studentship in English: V. C. Milson, University of Sydney.

David Wilson Prize: J. Wood (Faculty of Medicine), University of Liverpool.

The Builders' Conference Prize: E. J. Wall, University of Reading.

Course news

The Imperial College of Science and Technology is offering five courses in October:

A short postgraduate course on wave mechanics will be held on October 14, 1975. It deals mainly with the steady-state systems, i.e. linear, static methods, perturbation methods, and time dependent systems.

A short postgraduate course on introductory mathematics of diffusion will be held on October 14, 1975. The course concentrates solely on the differential equation for diffusion in a homogeneous medium; boundary conditions and general methods of solution.

A short postgraduate course on physical measurements is to be held on October 13, 1975. It is suitable for first-year post-graduates in chemistry, chemical engineering or materials science. Fee: £20.00.

A post-experience course on electron tube engineering will be held on October 14, 1975. The course offers an outline of the fundamental principles of electron tubes as well as a practical application of materials and processes in the manufacture of microwave cathode ray, camera and image tubes. A study project is undertaken. Fee: £120.00.

A post-experience course on vacuum technology will also be held on October 14, 1975. The course provides an introduction to the subject for research workers having little experience in vacuum techniques. A study project is undertaken. Fee: £120.00.

Admission for the courses should be made to the registrar, Imperial College of Science and Technology, Prince Consort Road, London.

News

The Institution of Electrical Engineers will be opening their new centre in South Wales on September 27 at the Brynmawr Hall, Swansea. Its aim is to strengthen the role of the chartered electrical engineers in the service of the community through continuing education and exhibitions. Tickets for the opening can be obtained from the secretary, Mrs. S. S. Gould, 15 Rodney Avenue, Margate, Swansea.

The Marjorie Franklin Bequest is enabling the Institute of Planned Environment Therapy Trust to study and train workers in treatment of emotionally disturbed or maladjusted children or adults with planned environment therapy. Those planning similar projects are invited to submit an outline scheme to Roy Scrimmo, A.S.A., 27 Marylebone Road, London, by the end of September.

More than 5,000 households in Northern Ireland are being questioned in a housing survey being carried out by a team of five researchers from the New University of Ulster, the University of Birmingham and the housing executive. The project deals not only with the physical state of homes but also with the characteristics of households. The results will be used to assess the best way of tackling the housing problem in Northern Ireland.

Two out of four British Association of Applied Linguistics lectures have been recorded at Leeds University. Dr John Gray of the University of Marburg, Germany, at Leeds' Leeds' Bay, was Darwin lecturer and Dr Anthony Unwin of the City Chemistry group was Brunel lecturer at the University of Surrey.

ANTIOCH COLLEGE INTERNATIONAL (accredited USA)

Starting September 1975, 14 months, June 1976, 18 months, June 1977, 24 months, June 1978, 30 months, June 1979, 36 months, June 1980, 42 months, June 1981, 48 months, June 1982, 54 months, June 1983, 60 months, June 1984, 66 months, June 1985, 72 months, June 1986, 78 months, June 1987, 84 months, June 1988, 90 months, June 1989, 96 months, June 1990, 102 months, June 1991, 108 months, June 1992, 114 months, June 1993, 120 months, June 1994, 126 months, June 1995, 132 months, June 1996, 138 months, June 1997, 144 months, June 1998, 150 months, June 1999, 156 months, June 2000, 162 months, June 2001, 168 months, June 2002, 174 months, June 2003, 180 months, June 2004, 186 months, June 2005, 192 months, June 2006, 198 months, June 2007, 204 months, June 2008, 210 months, June 2009, 216 months, June 2010, 222 months, June 2011, 228 months, June 2012, 234 months, June 2013, 240 months, June 2014, 246 months, June 2015, 252 months, June 2016, 258 months, June 2017, 264 months, June 2018, 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BOOKS

Nonconformist conscience

Nonconformity in Modern British Politics
by Stephen Koss
Batsford, £7.00
ISBN 0 7134 2981 X

In 1906 there were 73 Congregational members of Parliament, of whom 63 were Liberals. In 1935 there were 10, of whom the only Liberal was three Liberal Nationalists. At Westminster, Congregationalists had been overtaken by Methodists, but it signified little, for political nonconformity had already become a "party of memory": if, that is, it had ever existed.

Stephen Koss's intention is to examine, critically but respectfully, the fulfilment of which Nonconformity ceased to operate as a viable and fairly homogeneous tactical unit in modern British politics. Such a study is long overdue and the author brings to it his characteristic easy competence. He has largely surmounted the exasperating lack of obvious sources bedevilling students of the subject and much of what he has found is new.

But here I must come clean, since I belong, by conviction as well as by birth, to the denomination whose numbers have been most reduced and whose political influence has been most debilitated. The book is wrong, or rather, it is wrongly based.

First Stephen Koss is too respectful. His dramatic personae demand a specious treatment which they do not get, perhaps because modern historical discipline does not permit the grand gesture and the large view. Yet how else can justice be done to ministers (he will call them "divines") as variously gifted as R. E. Horton, the Arnoldian evangelist up in Hampstead, R. J. Campbell, grey in the City's Goat White Pulpit, Leyton Richards, C. S. Horne, W. B. Orchard, who outlasted Lloyd George in fascination and even J. D. Jones, who kept the sweet shop down the road in Bourne-mouth.

The ministers are underplayed; so, to the greater benefit of their reputation, are the dissenting knights, even the dreadful Compton, the obnoxious Croydon coal merchant who saw himself as a philosopher novelist. But if such men are to be placed properly in context and so escape typecasting, they need to be overplayed. They need the treatment of a sermon—preferably one of Bernard Manning's.

There may be few partisan reasons for feeling that the book is wrongly based. Despite scrupulous qualification Stephen Koss is unable to escape from the strait-jacket imposed by his treatment of nonconformity as a pressure group rather than the manner of the anti-corn law league. Seen thus it is inevitable that the story should be conveniently defined, with a beginning and an end. Yet it is by no means clear that the political nonconformity which Professor Koss

describes really existed, other perhaps than between 1906 and 1910. As he himself suggests at the end of his book it was just a sort of Hayley's Comet, "another phenomenon of the Edwardian age", as dazzling and deceptive as the rest. Of the statesman best placed by temperament and upbringing to turn it to good account, Asquith never did and Lloyd George only did when it seemed to be the last available option. Neither was dazzled; only Lloyd George was deceived.

If this is so, then the book needs a different frame of reference. "There are", said the *British Weekly* in May 1907, "in England about eight million Nonconformists, and it is safe to say that ninety-nine out of every hundred voters among them support the Liberal party."

But that is just what it was not safe for the *British Weekly* to say: take away the women and the youths and the men who were still disenfranchised, and how many were left? Certainly not enough to sway election results even assuming that enfranchised Free Churchmen were all Liberals. Which means that one must look carefully and in unexpected places for the fundamental attitudes which made the nonconformist influential rather than powerful. One must pay more attention to their inflexible variety so as better to catch their common distinctiveness, for, if there is no such thing as a typical Methodist, none the less Methodism marks one for life. What was it, which was produced, within kindred denominations and a few miles and years of each other, an Arthur Mee and a D. H. Lawrence? Arthur Mee's *Children's Encyclopedia* and Kings England and his Morley Horder house at Eynsford—this above all—show more of the texture of early twentieth-century nonconformity in all its guises than might seem reasonable at first sight.

What it shows is rather different from the ranting puritanism on which Professor Koss too frequently relies. It also suggests that the implications of a seventeenth-century ancestry interlarded with later revivals are less than clear-cut.

That leaves theology. When all is said by the politicians and done by the sociologists, men remain Free Churchmen because of their obedience to the call of God. Life is a response to that call, and they compact it at their eternal peril. Embarrassingly other worldly considerations of this sort make it inadequate, even for a good historian to regard nonconformity in modern British politics as a case study in electoral displacement and to leave it at that. Bias, where candidly recognised, can be the historian's best weapon. Nonconformists had a conscience. But the tenet is wrong: we still have one, and we know, ultimately, divine assurance, that we are right, libertarians that we are.

Nonconformity, then, Koss has given us a good book about: part of us as we are likely to get.

Clyde Binfield

Politics of the presses

The Limits of Reason: The German Democratic Press and the Collapse of Weimar Democracy
by Wolfram Ekkstein
Oxford University Press, £7.00
ISBN 0 19 821862 1

A newspaper is "a very sensitive barometer of the general economic situation". This contemporary view of the press in the Weimar Republic, while generally true at all times, is particularly relevant to Germany in the 1920s and early 1930s. Not only did the depression have a calamitous effect on the sales and advertising revenue of newspapers, but the structure of the German press made it very vulnerable to economic pressures during the years of crisis and in between. It was very decentralised with consequent low rates of circulation, and therefore was unable to assert an independent political influence. This weakness was reflected in the strong alignment between newspapers and particular economic interests and the habit with half the press of declaring a partisan preference. Crowding this tendency was the attitude to the press in Germany, where controversy rather than impartiality was considered the

guiding motive in the newspaper world.

In spite of the politicized nature of the Weimar press, economic considerations took priority over political ones in the policies of newspaper publishers, apart from strictly party organs. This is the conclusion reached by Wolfram Ekkstein in his study of three publishing houses—Möller, Ullstein and Sonneckmann. With their newspapers like the *Frankfurter Zeitung*, the *Berliner Morgenpost* and the *Vossische Zeitung*, these publishers have been selected because they, more than any other, acknowledged support for the ideas of liberal democracy. By concentrating on a few case studies, the author also offers further insight into the disintegration of parliamentary government in Weimar Germany. Although the intention of many editors was educative (in this instance, to promote democratic values), Ekkstein wisely discards any attempt to measure the political influence of these newspapers and restricts himself to examining "the manner in which the virtues which paralysed the other faculties of Weimar democracy also afflicted the democratic press and rendered it incapable of fulfilling the political role which it had assigned to itself".

Geoffrey Pridem



Before bookmakers individuals met to lay bets between themselves—from "The Turf: Three Centuries of Horse Racing" by Roger Longrigg; Eyre Methuen, £3.95.

The cement of patronage

Politics in Argentina 1890-1930: The Rise and Fall of Radicalism
by David Rock
Cambridge University Press, £6.50
ISBN 0 521 20663 4

The theme of *Politics in Argentina* is clearly stated in the preface: it is "the political interrelationship between different social classes in Argentina during the mature phase of the primary export economy in the forty years up to 1930". The author asks essentially straightforward questions (not always a marked feature to studies of Argentine history). What was the social composition of the Radical party? How did it come to power and how did it maintain itself in office for such a long period of time? How strong were the trade unions? What role did foreign capital play in Argentine politics? The questions may be straightforward but the answers are far from obvious. The considerable merit of this book lies in its careful, detailed and convincing attempt to delineate the structure of Argentina's social, economic and political development in the heyday of Radicalism.

The Argentine Radical party was a curious political animal. It was a coalition, at least ideologically, of sectors of the upper class and middle class, yet it also sought good relations with labour. It had an extensive machinery of local parties and relied heavily on the use of state

patronage. Its ideology was little more than crude nationalist rhetoric, intended to offend no one. It was dominated by Hipólito Yrigoyen, a messiah to his followers, a charlatan to his opponents.

The Radical party can only be understood in relation to the development of Argentine society and the economy. Because the economy was growing more and more prosperous (apart from cyclical depressions) the Radicals could rely on extensive state patronage to cement their following. Because much of the electorate was composed of unfranchised immigrant workers, the political base of the Radical party, the "dependent" middle class, was made even more electorally important. The Radicals, and without offending any social group. But its reliance on patronage, mobilisation and a few gestures of social reform were inadequate in times of crisis. Somewhat feeble efforts to protect the workers could be justified only by the most harshly to the party. But when the industrial depression eroded Radicalism's popular base and rendered incompatible the interests of the oligarchy and the middle class, the Radicals were overthrown by the military.

The working class in Argentina became dominated by the Syndicalists, who at times associated with Yrigoyen's Radicals, but whose attitude to politics was more generally expressed in a syndicalist newspaper. On Politics I hate you because you are vulgar, unjust, scandalous and charlatan; because you are the enemy of Art and Labour.

The examples chosen are because of the strong link between these publishers and the German Democratic Party (GDP). Even to the extent of the *Sonneckmann* Journalists playing a leading role in the founding of the party in 1918. This study traces the early disillusionment of the party's failure to live up to economic pressures from business elites such as the transfer of ownership by the publishers of the *Frankfurter Zeitung* to I. G. Farben and the impact of the latter case the publishing question began to dissolve itself from the DDP and the party's electorate dwindled. The chief concern was that the link with a declining class would harm newspaper sales.

This is a perceptive and well book on an aspect of Weimar politics which apart from the Kurt Koszyk to German has received sufficient attention to the intensive research done on this period.

Geoffrey Pridem

Master of reduction

Beckett the Shape Changer
edited by Katharine Worth
Routledge, £4.95
ISBN 0 7100 8123 5

A writer's image changes in his life. Samuel Beckett has long stood as the master of reduction, exploring the extremes of human deprivation in novels and plays whose language became progressively attenuated, each one seeming a terminus beyond which only silence might. The author's legendary hermit-like retirement intensified this aura of threatening silence. Yet Beckett is now in his seventieth year, a Nobel laureate. His sequence of hard-won, minimal works has accumulated until it attains a rich and varied oeuvre, attended by critics and commentators in the manner of Swift and Sterne. Katharine Worth herself shows how it fatigues a dazzling theatricality. Several contributors, however, do look at Beckett's career as a philosophical search. Philosophy can show us how Beckett reached his peculiar position, while performing an exorcistic function by exorcising the very things he does not need to share that position.

Charles Peake's essay illustrates this, while warning against the exoteric, over-philosophical approach of critics such as Hugh Kenner. Perhaps there is too much protection here? Kenner may well be accused, as Victor Sage does in this book, of seeing Beckett as a writer whose successive works are merely elaborations of a single philosophical statement. Yet many readers, sensing the danger, will demand an unsecured and open-ended responsiveness to the work is not as easy as it sounds.

Beckett's message, after all, is one of pungent and often cynical nihilism. To explain may be to exorcise, as he says of his character Watt, but a certain quantity of critical exorcism is inevitable. John Chalker, for example, sees the nihilism as progenitor of comic and farcical attitudes in the manner of Swift and Sterne. Katharine Worth herself shows how it fatigues a dazzling theatricality. Several contributors, however, do look at Beckett's career as a philosophical search. Philosophy can show us how Beckett reached his peculiar position, while performing an exorcistic function by exorcising the very things he does not need to share that position.

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Charles Peake's essay illustrates

Patrick Parrinder

More works than life

Laurence Sterne: the Early and Middle Years
by Arthur H. Cash
Methuen, £15.00
ISBN 0 416 62210 X

This is a very honest piece of scholarship about a man whose life and work have been more hectorically confounded than most and whose reputation has suffered almost as much from the zealous subtleties of those who in our own time expose him to the microscopes of research as from the sanctimonious assaults of earlier generations. "One can only search diligently after such traces as remain, try to establish some 'facts', and do one's best to weave them into a story," writes Professor Cash, and when at page 127 (and any reader of *Tristram Shandy* will agree that page 127 is as good a page as any other) he finds it necessary to embark on a discussion of the books which provided Sterne's own mental furniture, he reminds us and himself with some severity that "the bulk of this biography is to throw light upon Sterne's work by the study of his life, not the other way round".

The documentary sources for a study of Sterne's life are meagre indeed—a haphazard trail of letters, legal documents, political pamphlets, prejudiced memoirs, frivolous anecdotes—and Professor Cash has been, for a couple of decades or more, resifting the evidence on site in Ireland, Cambridge and the city and county of York as well as in record offices and libraries. Other single-minded researchers, with Lewis Perry Curtis, have preceded him, but he has found little that is positively new. He has instead given to old "facts" and theories a new consideration which is neutral and humane, and in this mood has written an "essay" which is set out to write displaying by the way a plausible mastery of matters literary, political, ecclesiastical, economic and philosophical. Confucius, if given rein, is never unbridled, and few readers will condemn a 30-page excursion on the "Forty-five which, if it has little to do with Sterne, at least offers convincing proof that Dr Burton was not at all the size and shape of Dr Slop.

In sum, this is a well-organized book and its narrative, which an author less disciplined and more

self-indulgent might well have muddled with too heavy a hand, runs with a lucid and leisurely fluency until at the very end the pace quickens, genius erupts, and with the publication of the first two volumes of *Tristram Shandy* Sterne and the reader set briskly off for London town. It is unlikely that Professor Cash, though he abstains from promising a second volume, has with the rest of *Tristram* and *A Sentimental Journey* yet to come, saved them goodbyes for good.

This is not to deny that there are yet some solemn souls who will assert that one volume of a new biography of Sterne is more than enough, for it is a curious fact that of those who dislike Sterne many also somehow resent him. The cost of this will be grateful to Professor Cash for this lovingly objective biography and for the corrective and amplification it supplies to the work of those serious students (of whom it may still be unappreciated necessary to repeat Thackeray was not one) who have preceded him. They will applaud as well the publisher who have sent this book into the world with a brave accompaniment of decorative endpapers and illustrations, many of them unfamiliar.

J. C. T. Oates

Love's old sweet song

James Joyce
by Kenneth Grose
Evans, £2.50 and £1.25
ISBN 0 237 44815 7 and 44816 5

Joyce in Nighttown
by Mark Schuchner
University of California Press, £5.50
ISBN 0 520 02398 6

Musical Allusions in the Works of James Joyce: an early poetry through Ulysses
by Zeck Rowan
Gill and Macmillan, £9.25
ISBN 7171 0757 4

Will the output of books about Joyce ever grow less? Here are three more, and they are enough to glut the keenest appetite.

It is doubtful whether a new short introduction to Joyce is needed at this time. Joyce's critical introductions, each of which made a valuable and original contribution to the understanding of Joyce's work were produced by Harry Levin (1944), S. L. Goldberg (1962), Anthony Burgess (1965) and R. M. Adams (1966). There is, W. V. Tatnell's readers' guide and John Grogan's primer in the *Modern Masters* series.

and misleading contribution to Evans' *Literature in Perspective* series would not be it. Factual errors abound; and Grose's critical quality is revealed when he writes of *Ulysses*: "Until I was asked to teach Joyce I never found the time or the mental discipline necessary to read it; but now that I have done so, I am convinced that it is the most complete work of art of this century."

Mark Schuchner is perhaps more a Freudian than a Joycean, and his *Joyce in Nighttown* is a detailed and rigorous Freudian interpretation of certain passages in Joyce's work, especially of the "Circe" episode in *Ulysses*, with revealing reference to the astonishing erotic correspondence (unfortunately refused publication by the Joyce Trustees) that took place between Jim and Nora Joyce in 1909. Schuchner's chief shortcoming as a critic of "Circe" is his too literal reading of the text which leads him, for instance, to this absurd conclusion that Gerry McDowell is a prostitute. But, for all the dogmatic naïveté, this is a real contribution to the understanding of Joyce's mind.

Musical Allusions in the Works of James Joyce is a dreadful disappointment. Most of the musical allusions in Joyce are to songs; and a song has two essential elements, words and music. When Joyce alluded to a song, he alluded to its music as well as to its words; and the full flavour and meaning of the allusion cannot be had from the words alone. The mind's ear must be able to hear the treble of the song. "Love's old sweet song," and the precisely apt songs that are sung in "Sirens," or half the flavour, half the point, is lost. Although Bowen has produced an interesting commentary on the words, he rarely prints or even refers to their tunes. Even the words are given without any system of reference which would enable the reader to look up their tunes (or their sources) for himself. What we have therefore is simply another allusion book to set beside Thornton and Gifford; and if we want to find out more about music in Joyce we must go back as before to the pioneering work of Hodgart and Worthington, and look up the tunes for ourselves.

Unbinding meanings

Troubadours and Eloquence
by Linda M. Peterson
Clarendon Press/Oxford University Press, £9.00
ISBN 0 19 815711 8

Dealing with five troubadours only and with only a part of their output, this book is not as comprehensive as its title suggests. The five troubadours—Marcabru, Peire d'Alvernhe, Ghescluc de Bornelh, Raimbaut d'Ourege and Arnaut Daniel—exemplify in some of their poems interesting and significant attitudes to style and method of composition, part of the meaning of the "eloquence" of the title. Anyone who has read the famous tenso in which Girard d'Arle and Raimbaut d'Ourege discuss poetics will be aware of the existence of the troubadour and the troubadour, the closed or hermetic manner of composition until the light or easy manner of composition. Dr Peterson sees the troubadour as originating with Marcabru who was limited by later poets and sees the hallmarks of this style as being not merely deliberate absurdity, but an awareness on the part of the poet that his work will be understood only by a small elite, a gradual unfolding of the theme of the poem, and the "binding together of meanings through the figurative use of words".

The troubadour, which Dr Peterson thinks may have been invented by Girard de Bornelh (as he was the first to formulate a definition of it) is, generally speaking, opposed to the troubadour. Poems written in this style should be capable of being understood by all, should avoid plebeian words and should avoid words with multiple meanings. Dr Peterson feels that the troubadour has been concentrated too much in the past on a *troubadour* and *troubadour* and the *troubadour* associated with Marcabru, the versant of Peire d'Alvernhe and the *troubadour* of Ezra Pound and the articulation of Dr Peterson to give complete satisfaction.

T. O. Jones

Reviewers

Among this week's reviewers: Professor W. H. G. Armytage is professor of education at the University of Sheffield and author of several books on the foreign influences upon English education. Wilfred Ashworth is librarian of the Polytechnic of Central London. Alan Angell is a lecturer in Latin American politics at Oxford and author of "Politics and the Labour Movement in Chile". Geoffrey Pridem is in the department of politics at Bristol University.

Clyde Binfield is in the department of history at the University of Sheffield and has written "George Williams and the YMCA: A study in Victorian social attitudes". J. C. T. Oates is a reader in historical bibliography at Cambridge and a trustee of the Laurence Sterne Trust. Patrick Parrinder is in the department of English at Reading University.

SUBLIME AND GROTESQUE
a study of FRENCH ROMANTIC DRAMA

W.D. HOWARTH

French drama of the Romantic period has long suffered from academic neglect. Both in France and abroad, scholars have been reluctant to take serious interest in this subject, with the result that there exists no thorough critical study of it seen as a whole. However, the rise of Romantic drama is of particular interest and importance both in the history of French literature, and in the development of the theatre. Professor Howarth's book shows how French Romantic drama stemmed from the social and literary climate of the period, and was influenced by the material conditions in the theatre of the day. The work also goes beyond a purely historical approach, and evaluates the plays critically, from a theatrical as well as a literary point of view.

The book is illustrated with contemporary pictures of scenes and characters from the plays, and is provided with two particularly valuable appendices: a chronological list of plays from 1827 to 1852; and a list of the roles played by the principal actors over the same period.

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General Editor: Douglas F. Brewer

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Extracts from speeches delivered at the annual conference, held at the University of Surrey

Science and the national economy

This country's economy has been weak for well over a decade now. But the events of the past two years—the oil crisis, the miners' strike, the investment famine and galloping inflation—have changed the whole scale of the problem. A lingering and periodic anaemia has suddenly turned into a raging illness which threatens acute organic failure.

Many people throughout the country now, while generally looking in the Government for leadership, ask themselves what can be done to help protect the country from economic collapse and help restore its strength. And here in the British Association it is natural to ask what part science can play in this, taking "science" in this context to mean both science and technology.

Science, working through the initiatives of industry, is today already providing the national economy with its greatest hand transmission of recent times, one that in the opinion of most Government ministers is quite likely to go on through the crisis if we can only hold on until it begins to have its invigorating effect. I refer of course to North Sea oil, a geological discovery.

Apart from this shining exception, science generally is not able to do much for the economy at the present time. This is no fault of science itself, however. Science can create opportunities for industrial and economic progress and is doing so today as prolifically as ever. But scientific miracles do not become economic miracles of their own accord.

For this, there have to be great new industries set up, to turn ideas into tangible goods, and this calls for huge investments of money, and management. And this is the difficulty. The climate of circumstances in the country today is all against such ventures.

In the face of too many discouragements, the necessary ingredients of investment finance, commercial drive and industrial confidence are simply no longer there, in most cases.

When needs scattered on barren ground fail to grow, the wise gardener does not change his seed merchant but tries to improve their soil, in his efforts to increase their contribution to his garden economy. It is the same with science and the national economy. We can be discussing the problems of the scientific contribution by considering, not science itself, but the industrial environment in which its seeds are expected to grow.

This brings us straight into the general growth of the conditions of industry and especially of the relationship between Government and industry. It is here that things have badly gone wrong.

Successive Governments have failed to create the stable and encouraging relationship with industry—especially manufacturing industry—that is required to enable this industry to thrive, become stronger, and better able to earn the country's keep in world markets.

What could science do, if the national environment became favourable? There are several things that we can do in making decisions about the future, North Sea oil, the fruit of scientific discovery.

This discovery was made not by ministerial declarations, or White Paper announcements, or trade negotiations, but by geologists' wanderings, but by geologists' explorations using modern scientific techniques. While others give us the mind and fury, science gives the substance of economic improvement.

Let us here also recall the agricultural improvement of this country, which has raised the output of home-grown food by more than 70 per cent during the past 20 years, mainly through the practical applications of science and technology.



Sir Alan Cottrell.

ably and when the country has been losing 50,000 acres a year of agricultural land for roads, houses, and so on.

Given a real government determination to make practical improvements, our scientifically modernized agricultural industry could in a few years grow all our domestic needs for non-tropical foods. This would have an excellent effect on our balance of payments, as well as reducing the burden of Britain's demands on the world's increasingly precarious food supplies.

But what about manufacturing industry, which is where the problems I have been discussing mainly lie?

Here is a huge sector of the national economy, responsible for about one-third of our total output, but in such a state, after a decade of having a miniaturized state of half of what we import now consists of manufactured goods which we could easily make ourselves. If this industry were truly regenerated, it would make it more bountiful, efficient and competitive, science would quickly and naturally find its opportunities, there, to help its technical advancement and so to contribute in the national economy.

The most direct and immediate way to set all this into motion would be to reduce taxes on the production sector of the national economy, compensating this as necessary by an increase on the consumption sector. This would stimulate industrial investment and open the way to modernization and scientific improvement.

The required change is a large one. The output of manufacturing industry at present amounts to about £20,000m a year. The lifetime of a given line of manufactured product, before it becomes technically obsolete and unsaleable, is on average about 10 years.

This means that each year, £2,000m of new product sales have to be generated. In other words, investment in the development of new products has to be large enough to create £6m additional sales of new products every day.

Efforts as great as this can, I think, be brought about quickly through a change in the industrial system. But an investment from government, for example through the National Enterprise Board, could have a useful pump-priming effect, provided it was directed to encourage technically promising and commercially viable ventures, and its motive was industrial improvement pure and simple.

All this is surely an entirely proper function for a Department of Industry whose duty is plainly to improve the efficiency and competitive strength of the industries in its charge.

If the language of sensibly directed industrial investment falls to take place, the contribution of science to the national economy is barely worth serious discussion. There are some useful things that science can do in making decisions about the future, North Sea oil, the fruit of scientific discovery.

This discovery was made not by ministerial declarations, or White Paper announcements, or trade negotiations, but by geologists' wanderings, but by geologists' explorations using modern scientific techniques. While others give us the mind and fury, science gives the substance of economic improvement.

Let us here also recall the agricultural improvement of this country, which has raised the output of home-grown food by more than 70 per cent during the past 20 years, mainly through the practical applications of science and technology.

Alan Cottrell

The author is Master of Jesus College, Cambridge, and Lecturer in Chemistry.

BRITISH ASSOCIATION

Biochemistry departments do good job

Biochemistry departments in British universities do an important job well. Compared with other countries, we have had our priorities right even though we could do even better in performance.

What worries me is that there seems to be so little understanding of what we are trying to do, and of the merits of our way of doing things, among those who influence affairs in our country.

If we are not careful we shall end up with universities which are as worthless as are those in so many parts of the world.

I would argue that universities have a dual role, to discover new knowledge and to hand this on to their students. If this be so, then it is clear that university departments, quite apart from their teaching roles, have a duty to undertake research. Not everyone, however, seems to share this view so far as research is really necessary, and could not the departments merely concentrate on their teaching role.

According to this view the research would be done in specialized research institutes either in this country or abroad and the teacher's role would be that of an interpreter. A short visit to a department that either through choice or necessity has accepted this interpretation of its function quickly convinces one that this concept is fallacious.

Unless the teaching is conducted in an atmosphere of research it is simply not possible for the teachers to keep up to date, to read the research journals intelligently and to assess the relevance of the subject as a whole of what is reported in the literature. In the absence of a research atmosphere the teaching is merely the recitation of textbooks and the students have no feeling for the excitement of the subject.

This is really essential for the satisfactory teaching of advanced students. I should emphasize that I do not say that one cannot be a good teacher if one does not do research, I merely say that one must teach in a community that is conducting research.

Before leaving the matter of research and teaching I would like to say something about postgraduate research students. I certainly take the view that the first job of a university department so far as the PhD programme is concerned is the training and education of really able students. I believe that this is what the country wants and what industry needs.

The demand for more course work in the PhD programme stemmed in part from the system in the United States of America where they tend to believe that you only have to be a student to a course and he will improve himself. It is interesting to note that the

annual of course work in American PhD programmes is being markedly reduced so that before long the two systems will be very similar.

There are those who believe that our students should attend mini courses on economics and management but I am sure we do well to resist these ill thought-out schemes. It is far better that industry itself should take such remedial action as it desires.

If we set up such courses not only would we have difficulty in persuading our students to attend at the expense of their research but industry would tell us that the course contents were no good.

What about the research activities of the staff? We have already justified them on the grounds of teaching at both the undergraduate and postgraduate level. This is clear that they must do research but what do they contribute to the total research effort of the country, especially in medicine?

We derive our research funds from two general sources (1) internally from the university from UGC funds and (2) by grants from the research councils and the voluntary organizations. There are those who maintain that there is no need for any of the university funds to be directed to research and that the only way to maintain standards is for all the funds to be competed for on a national basis.

I feel that the best situation is the intermediate one. There should be limited funds for the on-going research of the department which should take care of student projects, research students, new members of staff and those who are at present out of fashion.

From our viewpoint research council support is essential if we are to perform our dual function of discover and inform. My point is, however, that we cannot effectively put ourselves in the position to receive these valuable grants unless we have enough money from the university to keep the organization ticking over. My fear is that in the present straitened circumstances of the universities the internal sources of finance will dry up and so prevent us from benefiting from the external sources.

Finally I would like to say something about contract research. This was a matter that was much discussed as a result of the Rothschild Report but today in this country we hear little about it. No doubt the MRC and the SRC are pursuing the modified Rothschild proposals but for we have not been much affected in the case in the USA. I learn on a visit in June-July this year. There the research contract is having a marked effect and I believe is a cautionary tale.

During the 1960s we all admired the research grant system which our American colleagues set up and which was so effective in the encouragement of excellence in research. The essence of the grant system was that the individual scientist made application to a central agency to allow him to do a particular piece of work.

The grant system is being gradually replaced by the contract system. The decision what research needs to be done and how it is to be done are now considered and decided by contractors chosen.

This leads to a lot more bureaucracy since someone has to do at six-monthly intervals on the papers of the contract. What is more, however, is that the scientist no longer has the major say in the nature of the work done which means that he is directed to pursue research that he does not believe will contribute either to the advancement of fundamental discovery in his subject nor to the overall aims of the donating agency. Money for grants is now, however, so tight that the university scientist has to bid for these contracts in order to survive.

I submit that the contract research system is having a big distorting effect on the work of university biochemistry departments in the United States of America. What is more many of the staff are so fearful for their future that they neglect their teaching. They lose their ability to attract contracts money and hardly at all on the teaching activities.

As chairman of the committee of education of the International Union of Biochemistry I am disturbed by the appalling state of many of the universities of the world. Not even those in affluent societies such as the United States of America and Germany are free from criticism.

So far we have done comparatively well and our priorities have been right. In particular the departments of biochemistry have done a fine job and students of excellent quality. Our problem is to hang on to these good things and encourage our existing departments and avoid the mistake of setting up numerous departments of research which are not sustainable and cannot possibly be sustained by other workers who are not in the field of the next few years so that do not throw away the good with the bad.

For these reasons each of the MRC's boards is responsible for the development of the system. Good management of land requires good understanding of natural ecology and the consequences to be expected of a disturbance of a system and hence how bad consequences can be mitigated.

The understanding of the natural processes of nature, whether it be the function of an organism such as the ecology of land areas or fisheries, or the needs of crops, is by its very nature fundamental to the stock of our natural resources and of agriculture.

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The British Council

King Abdul Aziz University,
Jeddah, Saudi Arabia

Course Team for a Programme of Communication Skills in English

THE PROJECT: The British Council has been asked to establish a Language Service Centre at King Abdul Aziz University to develop English Language Communication Skills for 320 Saudi students in the Faculties of Medicine and Engineering. The programme will run initially for one year and will be carried out in association with various university departments in Britain and with the Council's English Teaching Division in London. It will require a wide range of expertise in the teaching of English for scientific and technical purposes, and other opportunities for the preparation of teaching materials.

THE POSTS: 3 Course Tutors in Technical Study Skills are required.

THE APPLICANTS: Candidates, men only, must be graduates, preferably with TEFL qualifications. Experience in Mathematics or Science Education will be an additional recommendation.

SALARIES: £4,965-£5,524 pa. All salaries are tax free. They may be increased for candidates with special qualifications and experience.

BENEFITS: Free furnished accommodation; overseas and children's allowances; passage; paid annual home leave; outfit and baggage allowance; travel costs. One-year contracts, possibly renewable.

Please write, briefly stating qualifications and length of appropriate experience, to quote reference 75 AU 60-86 for further details and an application form to The British Council (Appointments), 65 Davies Street, London W1V 2AA.

AUSTRALIA

AUSTRALIAN NATIONAL UNIVERSITY

FACULTY OF ARTS

Appointments to the following positions are invited for the Faculty of Arts, Australian National University, Canberra, Australia. The successful candidate will be responsible for the teaching and supervision of students in the Department of English, and will be expected to contribute to the development of the Department.

LECTURER IN ENGLISH: The successful candidate will be responsible for the teaching and supervision of students in the Department of English, and will be expected to contribute to the development of the Department.

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AUSTRALIA

UNIVERSITY OF WESTERN AUSTRALIA

Perth

Applications are invited for appointment to a CHAIR IN ENGLISH. This is one of two chairs in the Department of English, the largest department in the Faculty of Arts. The successful candidate will be responsible for the teaching and supervision of students in the Department of English, and will be expected to contribute to the development of the Department.

LECTURER IN ENGLISH: The successful candidate will be responsible for the teaching and supervision of students in the Department of English, and will be expected to contribute to the development of the Department.

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UNIVERSITY OF IFE NIGERIA

Applications are invited for the following posts:

(1) PROFESSOR IN THE INSTITUTE OF ADMINISTRATION

in any of the following fields: Public Administration or Management; Development; Public Finance and Financial Management; Management Accounting and International Relations. Applicants must have a good honours degree plus postgraduate degree(s) in the relevant field and considerable experience in teaching, research and administration.

(2) SENIOR CONSULTANT/CONSULTANT

In each of the following areas: Tax Administration; Personnel Management; Financial Management and Local Government Administration. Applicants must be graduates or professionally qualified persons with considerable professional practical experience.

The Institute is an administrative staff college to the Government of Nigeria as well as a graduate school of public administration. The duties of the appointees will be to teach, carry out research and provide advisory services to Governments, Corporations and other state-owned companies, and carry out consultancy assignments in his field of specialization.

Salary rates: N8,730 in N12,411 per annum for Professor; N6,021 in £8,560 per annum for Senior Consultant; N6,895 in N8,730 per annum for Consultant (£4,755 to £6,021 per annum for Senior Consultant; £1 Sterling = N1.10)

The British Government may supplement salaries in appropriate cases. Family passages, medical and superannuation allowances, various allowances and regular overseas leave. Detailed applications (two copies), including a curriculum vitae and naming three referees, should be forwarded by airmail, not later than October 3, 1975, to the Registrar, University of Ife, Ile-Ife, Nigeria. Applicants resident in U.K. should send one copy to Inter-University Council, 50/51 Tottenham Court Road, London W1P 0DT. Further particulars may be obtained from either address.

AUSTRALIA

UNIVERSITY OF SYDNEY

LECTURERSHIP IN BIOLOGY

DEPARTMENT OF AGRICULTURAL BOTANY

Applications are invited for the position of Lecturer in Biology, Department of Agricultural Botany, University of Sydney, New South Wales, Australia. The successful candidate will be responsible for the teaching and supervision of students in the Department of Agricultural Botany, and will be expected to contribute to the development of the Department.

LECTURER IN BIOLOGY: The successful candidate will be responsible for the teaching and supervision of students in the Department of Agricultural Botany, and will be expected to contribute to the development of the Department.

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AUSTRALIA

AUSTRALIAN NATIONAL UNIVERSITY

FACULTY OF SCIENCE

CHAIR IN PSYCHOLOGY

Applications are invited for the position of Chair in Psychology, Faculty of Science, Australian National University, Canberra, Australia. The successful candidate will be responsible for the teaching and supervision of students in the Faculty of Science, and will be expected to contribute to the development of the Faculty.

CHAIR IN PSYCHOLOGY: The successful candidate will be responsible for the teaching and supervision of students in the Faculty of Science, and will be expected to contribute to the development of the Faculty.

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Polytechnics continued

Thames Polytechnic

School of Surveying

Division of Building Economics and Costs

Senior Lecturer

Applications are invited from qualified members of the quantity surveying profession to a post in the Division of Building Economics and Costs, Faculty of Architecture and Surveying, Thames Polytechnic, London W6 6LU. The Division is responsible for teaching on building economics and costs in the Quantity Surveying and Building Surveying, part-time courses for the RICS and IOS examinations and Options courses in Architecture and Landscape Architecture. The person appointed will join a team of quantity surveyors involved in teaching, research, consultancy work and will be highly motivated and experienced in the field. The person appointed will be responsible for applications from experienced practitioners who are involved with current developments in the education of the construction cost consultant and other members of the design team will be considered. Salary scale: £5,031-£5,855 (bar) - £4,817 plus £281 London weighting allowance. Further particulars and form of application may be obtained from the Secretary, Thames Polytechnic, Watlington Road, London W6 6LU, to whom completed applications should be returned by 23 September, 1975.

Thames Polytechnic

School of Surveying

Division of Construction Technology and Building Management

Temporary Lecturer

Applications are invited from suitably qualified Surveyors, Architects, Builders or Civil Engineers to teach Construction Technology and Management in the School of Surveying on a temporary basis. The person appointed will be responsible for teaching on the part-time courses for the RICS and IOS examinations. The person appointed will be highly motivated and experienced in the field. The person appointed will be responsible for applications from experienced practitioners who are involved with current developments in the education of the construction cost consultant and other members of the design team will be considered. Salary scale: £5,031-£5,855 (bar) - £4,817 plus £281 London weighting allowance. Further particulars and form of application may be obtained from the Secretary, Thames Polytechnic, Watlington Road, London W6 6LU, to whom completed applications should be returned by 23 September, 1975.

UNIVERSITY OF CALABRIA

Applications are invited for the post of Lecturer in English for the academic year 1975-76. Candidates should forward applications by express mail with detailed curriculum vitae, photocopies of degrees/diplomas, on a copy of 1,000-2,000 words on 'The Teaching of English to University Students' which should include a discussion of the role of the language laboratory, references and any publications to: Il Magnifico Rettore, Università degli Studi di Calabria, Cattedra di Lingua e Letteratura Italiana, Palazzo Ferraro, 87030, IZZO (CS), Italy. The salary is £300 per month. 1975-76 salary scale £1,200-£1,800 per month.

MANCHESTER THE POLYTECHNIC

Applications are invited from suitably qualified members of the quantity surveying profession to a post in the Division of Building Economics and Costs, Faculty of Architecture and Surveying, Thames Polytechnic, Watlington Road, London W6 6LU, to whom completed applications should be returned by 23 September, 1975.

LIVERPOOL THE POLYTECHNIC

Applications are invited from suitably qualified members of the quantity surveying profession to a post in the Division of Building Economics and Costs, Faculty of Architecture and Surveying, Thames Polytechnic, Watlington Road, London W6 6LU, to whom completed applications should be returned by 23 September, 1975.

LIVERPOOL THE POLYTECHNIC

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LONDON, S.E.18

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THE POLYTECHNIC OF NORTH LONDON

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SHEFFIELD THE POLYTECHNIC

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KINGSTON POLYTECHNIC GIPSY HILL

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General Vacancies

Opportunities for Social Scientists

S.S.R.C. French Programme 1976/77

The Social Science Research Council French Programme enables British Social Scientists to maintain and develop contact with their French opposite numbers. It aims at encouraging exchanges which are likely to lead to collaborative research and involve links with the Centre National de la Recherche Scientifique (CNRS), the Ecole Préfrique des Hautes Etudes (EPHE) and the Mission des Sciences de l'Homme.

Social Science Research Council

DORSET EDUCATION AUTHORITY Institution of Higher Education

Appointment of DIRECTOR

Applications are invited from graduates with substantial experience in the fields of higher and/or further education and who hold or have held posts carrying senior management responsibilities with a college. The salary range is likely to be that appropriate to a Group 9 College.

GREATER LONDON ARTS ASSOCIATION

Appointment of DIRECTOR

Salary negotiable but not less than £7,500. Further particulars may be obtained from The Correspondent, Greater London Arts Association, 25/31 Tavistock Place, London WC1H 9SF.

Administration

ASSOCIATION OF TEACHERS IN TECHNICAL INSTITUTIONS

HIGHER EDUCATION OFFICER

Applications are invited for the above post. The Higher Education Officer will be responsible for all aspects of Higher Education (Including Teacher Training). Experience in Higher Education in the public sector is desirable.

Colleges of Further Education continued

COLLEGE OF FURTHER EDUCATION, HULL Appointment of Principal

Applications are invited for the post of Principal of this college of further education, which will be designated in September, 1976, simultaneously with a new institution of higher education at Kingston upon Hull. The two new colleges will result from the amalgamation of Hull Regional College of Art, Hull College of Commerce, Kingston upon Hull College of Education, Hull Nautical College and Hull College of Technology, together with the voluntary Endeavour College of Education. An appropriate division of responsibility for advanced and non-advanced courses is planned. It is likely that the salary will be a point within the range for a Group 8 college, i.e. £10,044-£10,554.

Humberside County Council

Appointment of Principal

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INSTITUTION OF HIGHER EDUCATION—HULL

Appointment of Director

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Fellowships and Studentships

Bulmershe College of Higher Education (formerly Bankside College)

SENIOR RESEARCH FELLOW

Applications are invited for the post of Senior Research Fellow to take research responsibility for a major project funded by the Department of Education and Science into a study of 'student choice in the context of institutional change'. The grant provides for the appointment of the Senior Research Fellow, a Research Assistant and full secretarial support.

Holidays and Accommodation

REMINDER

Advertisements should reach The Times Higher Education Supplement by the Friday prior to publication for classified display advertisements and by 23.59 on the day prior to publication for those and semi display.

Polytechnics continued

dundee college of technology

Applicants should possess a good honours degree or higher degree in Civil Engineering; they should be specialists in Soil Mechanics and Foundation Engineering and have substantial teaching experience at degree level, together with a research and/or practical professional background. The person appointed will be Subject Leader in Geotechnics for the degree course in civil engineering.

Applicants should have a good honours degree in a relevant discipline, experience in teaching at degree level, and relevant practical and/or research experience. The person appointed will be expected to make a substantial contribution to the development of a new degree course in accounting.

Applicants should have a good honours degree for equivalent qualification and appropriate teaching, research or practical experience. The post involves teaching mainly at undergraduate level, with opportunity to take part in post graduate and post experience courses. Preference will be given to candidates with interest and experience in Financial or Management Accounting or in the development of Management Information Systems using computer techniques. The person appointed will be required to contribute to the development of a new degree in accounting.

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